MEDIFIT EDUCATION'S

Fat Loss Made Easy

Your Medical Guide to Overcoming Obesity

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| Fat Loss & Obesity Info | Difference – Fat Loss & Weight Loss | BMI – Body Mass Index | Obesity | Central Obesity | Child Obesity | Causes of Obesity | Physiology, Diet & Nutrition For Fat Loss | Weight Loss Physiology | Dead Food vs Alive Food | UPF – Ultra Processed Foods | Vegetarian vs Non - vegetarian foods | Overeating Psychology | Supplement Vitamins Minerals | Low Carb Diets | High Fiber Foods | Coffee & Tea | Avoid Alcohol | Smoking | Ways To Fat Loss | Sedentary Lifestyle | Exercise | Brisk Walking | Intermittent Fasting | Dieting | Protein Intake | Water Intake | Posture | Yoga – Aasans | Sleep | Chronic Stress | Hypothyroidism | Massage | Pranayama | Meditation | Music for Weight Loss | Dancing for Weight Loss |Genetics | Prescription Weight Loss Medications – A brief |

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Dr Mahesh Kumar
Abhijnan Shil

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Dr Mahesh Kumar

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Fat Loss Made Easy

A1 DIFFERENCE – FAT LOSS & WEIGHT LOSS

Weight loss is the overall drop in weight due to any body component, including fat, muscle, water, and more. While fat loss, as the name implies, refers to losing only excess fat from the body.

Fat, muscle, and water can play a role in weight loss. However, it can also occur due to other factors, such as bone mineral or glycogen stores. Glycogen stores may be particularly relevant for people following low-carb diets. Sometimes, people use the terms weight loss and fat loss interchangeably. However, they have different effects on the body and health.

When people are trying to lose weight, they might typically weigh themselves on a scale. However, this only tells them how much weight they have lost — not how much fat. Losing fat is more beneficial than losing water or muscle, so it is helpful to be aware of body composition and how it affects health.

What is the difference between fat loss and weight loss?

When someone loses weight, they may lose water and muscle, not just fat. Fat loss refers to losing only excess fat from the body.

To understand this concept further, here is an explanation of body composition:

Water weight

On average, water can account for 50-60% of a person's total body weight. The term "water weight" refers to any extra water the body is holding.

However, drinking less water will not cause a person to lose water weight safely. Conversely, drinking more water canTrusted Source help a person lose weight more effectively.

Water also helps transport carbohydrates and proteins in the bloodstream so the body can metabolize them.

The first step to losing water weight involves reducing sodium intake. Excess sodium can make the body hold on to too much water in order to keep the correct salt-water ratio.

Should a person aim to lose weight or fat?

Sometimes when people lose weight, they decrease their muscle and fluid density as well as fat levels. This could result in a reduction in lean body mass and adverse health implications.

According to a 2018 review, the negative health implications of a loss of lean body mass are as follows:

- lowered metabolism
- fatigue
- declines in neuromuscular function
- potential effects on emotion and psychological states
- increased risk of injury

Moreover, the authors note that the metabolic decline that occurs following a loss of lean body mass can regain fat mass and cause unfavorable changes in body composition.

The researchers advise that sustainably losing fat mass while maintaining lean body mass is even more important than overall weight loss.

How to distinguish fat loss from other weight loss

Health professionals can measure someone's body fat using anthropometric devices. Still, a 2021 review indicates that no single method is sufficiently adequate, and many measuring methods are either expensive, complicated, or inaccurate.

There are several ways to measure fat loss:

Body fat scales use bio-impedance to tell someone what their body fat percentage is, and a person can use the scales to track their fat loss.

Callipers measure fat in specific areas by pinching the skin, such as the abdomen. However, they can be challenging to use accurately.

A tape measure can track where someone is losing weight. However, it does not specifically show if the inches lost are fat.

Body mass index (BMI) is an anthropometric measurement that health professionals recognize to classify someone's weight. If BMI reduces, a person could be losing body fat and lean body mass.

Waist-to-hip ratio or waist circumference are measurements that a person can obtain with a tape measure and may help monitor fat around the middle.

Summary

Losing weight can help someone avoid obesity and the risk of chronic diseases. However, losing fat can also mean losing fluid and muscle, and reducing lean body mass.

People must maintain their lean body mass for health, strength, and overall vitality. This can be particularly challenging for older adults, who are more at risk of sarcopenia or muscle loss.

Eating adequate amounts of protein, paying attention to macronutrients and calories, and strength training can help lose fat and maintain muscle. People can also consult a nutritionist or exercise professional for individual advice and recommendations.

A2 BMI – BODY MASS INDEX

Body mass index (BMI) is a tool that healthcare providers use to estimate the amount of body fat by using your height and weight measurements. It can help assess risk factors for certain health conditions. The BMI isn't always an accurate representation of body fatness.

What is body mass index (BMI)?

Body mass index (BMI) is a medical screening tool that measures the ratio of your height to your weight to estimate the amount of body fat you have. Healthcare providers calculate BMI by using weight in kilograms (kg) divided by the square of height in meters (m2).

In most people, BMI correlates to body fat — the higher the number, the more body fat you may have — but it's not accurate in some cases. BMI alone doesn't diagnose health. Healthcare providers use BMI and other tools and tests to assess someone's health status and risks.

High body fat may lead to heart disease, stroke and Type 2 diabetes. Low body fat may be related to malnutrition. Just the right amount of body fat helps vitamins and minerals get into your body. It also provides a source of energy for your body, helps maintain body temperature and protects your organs.

You shouldn't use the standard BMI chart to evaluate a child's or teenager's weight. Talk to your child's healthcare provider about the optimum weight range for their age and height.

What is BMI used for?

Healthcare providers use BMI to help diagnose weight types and as a screening tool for certain health conditions.

Diagnosing weight types with BMI

In general, the following BMI ranges (in kg/m2) classify different weight types:

- Underweight: Less than 18.5
- Optimum range: 18.5 to 24.9
- Overweight: 25 to 29.9
- Class I obesity: 30 to 34.9
- Class II obesity: 35 to 39.9
- Class III obesity: More than 40

BMI isn't the only tool providers use to classify weight types. Other tools include:

- Measuring waist circumference

- Measuring skin thickness using skinfold calipers in certain areas of your body, such as the back of your upper arms and under your shoulder blades
- DEXA scan and air displacement plethysmography (ADP) — these are used less often

Screening for health risks with BMI

If you have a BMI less than 18.5 (underweight), you may be at a higher risk for developing the following conditions:

- Malnutrition
- Anemia
- Weakened immune system, which could lead to more frequent infections and illnesses
- Osteoporosis
- Infertility

If you have underweight, your healthcare provider will likely order certain blood tests and other tests to check your overall health and to see if you're malnourished.

In general, the higher your BMI, the higher your risk for the following conditions:

- Heart disease
- High blood pressure (hypertension)
- Type 2 diabetes
- Gallstones
- Osteoarthritis
- Sleep apnea
- Certain cancers, including colon, breast, endometrial and gallbladder
- Depression and other mental health conditions

It's important to remember that you could have any of the above health conditions without having a high BMI. Similarly, you could have a high BMI without having any of these conditions. Genetics and other factors, such as smoking cigarettes, play a large role in the development of these conditions.

How do I calculate my BMI?

You can calculate BMI yourself with these steps:

- Multiply your weight in pounds by 703.
- Divide that answer by your height in inches (there are 12 inches in 1 foot).
- Divide that answer by your height in inches again.

For example, a person who weighs 180 lbs. and is 5 feet and 5 inches tall (65 inches total) would calculate their BMI in the following way:

1. 180 x 703 = 126,540
2. 126,540 / 65 = 1,946.769
3. 1,946.769 / 65 = 29.95

Their BMI would be 29.9.

What is a healthy BMI?

The optimum range for a healthy BMI is considered to be 18.5 to 24.9.

It's important to remember that body fatness isn't the only determiner of overall health. Several other factors, such as genetics, activity level, smoking cigarettes or using tobacco, drinking alcohol and mental health conditions all affect your overall health and your likelihood of developing certain medical conditions.

What are the limitations of BMI?

The standard BMI chart has limitations for various reasons. Because of this, it's important to not put too much emphasis on your BMI.

Even though the BMI chart can be inaccurate for certain people, healthcare providers still use it because it's the quickest tool for assessing a person's estimated body fat amount.

Limitations of using BMI to help diagnose weight types

The standard BMI has limitations in regards to diagnosing weight types, including:

- BMI doesn't differentiate between lean body mass (the weight of everything in your body except fat) and fat mass. Because of this, a person can have a high BMI (by being muscular) but still have a very low fat mass and vice versa.
- The same BMI chart is used for males and females even though adult females typically have more body fat than adult males.
- The BMI chart hasn't been adjusted for the increasing average adult height over the years.

You shouldn't use the standard BMI chart to assess the amount of body fat of the following populations:

- Athletes and bodybuilders
- Children and teenagers
- Anyone who's pregnant
- Anyone over the age of 65
- People who have muscle atrophy (wasting) due to medical conditions

A3 OBESITY

Obesity is commonly defined as having too much body fat. A BMI of 30 or higher is the usual benchmark for obesity in adults. Obesity increases the risk of serious medical conditions. Treatments include changing what you eat, adding activity and mental health support.

What is obesity?

Obesity is when you have excessive body fat. It's a chronic (long-term) and complex disease that can affect your overall health and quality of life. Obesity can lead to serious medical conditions. It can affect your self-esteem and mental health.

If you have obesity, you're not alone. It's a common disease that affects 2 in 5 adults in the United States. A healthcare provider can help you find the treatments and management strategies for your body and health.

What are the symptoms of obesity?

While obesity is a disease, it doesn't cause specific symptoms. A healthcare provider may define obesity by calculating your:

- **Body mass index:** The BMI measures average body weight against average body height. Healthcare providers use BMI to classify obesity.
- **Body shape:** Providers may measure your waist circumference.

BMI classifications

Healthcare providers classify obesity by your BMI. There are three general classes of obesity that providers use to decide what steps you can take to lose weight. Those classes are:

- Class I obesity: BMI 30 to less than 35 kg/m² (kilograms per square meter).
- Class II obesity: BMI 35 to less than 40 kg/m².
- Class III obesity: BMI 40+ kg/m².

When you think about the BMI scale, it's important to remember the BMI scale doesn't accurately predict specific health risks.

Waist circumference

Where you carry extra weight may be a sign that you have more risk of health issues that obesity may cause. The Centers for Disease Control and Prevention (CDC) says a waist circumference of more than 35 inches in females or 40 inches in males can be a risk factor for cardiovascular disease or Type 2 diabetes.

What causes obesity?

On the most basic level, obesity happens when you consume more calories than your body can use. Many things may play a role in why you may eat more food than your body needs:

Certain medications: Medications you take to treat other conditions may contribute to weight gain. Examples are antidepressants, steroids, anti-seizure medications, diabetes medications and beta-blockers.

Disability: Adults and children with physical and learning disabilities are most at risk for obesity. Physical limitations and lack of adequate specialized education and resources can contribute.

Eating habits: Consuming more calories than your body needs, eating ultra-processed food, high-sugar foods and drinks, and foods with high amounts of saturated fat may cause overweight.

Genetics: Research shows people with obesity carry specific genes (obesity-susceptibility genes) that affect appetite. It's not clear if people with overweight have the same genetic makeup.

Lack of physical activity: High amounts of screen time — like watching TV, playing video games or spending time on your mobile phone or laptop — cut into the time you have for physical activity.

Lack of sleep: Missing out on at least seven hours of sleep can affect the hormones that keep hunger urges under control.

Stress: Your brain and body react to stress by making more hormones like cortisol that manage hunger. When you're stressed, you're more likely to eat high-fat, high-sugar food (comfort food) that your body stores as extra fat.

Underlying health issues: Diseases like metabolic syndrome and polycystic ovary syndrome can cause side effects like weight gain. Mental health issues like anxiety and depression can lead to eating high-calorie foods that activate the pleasure centers in your brain.

How do healthcare providers diagnose obesity?

Your healthcare provider will measure your weight, height and waist circumference at your appointment. They may do body composition tests like a bone density test scan or a bioelectrical impedance analysis. This test measures body composition based on the rate at which an electrical current passes through your body. More importantly, they'll want to know about your overall health. They'll ask about:

Your history of medical conditions and treatments, including medications. They may ask about your biological family's health.

Your weight history, including your experience with any weight management strategies that you've tried.

Your lifestyle, including your current eating habits, how you sleep and how much activity you do in your daily life.

Your mental well-being. They may ask about stress and other things that could affect your mental well-being. Stress and other issues can lead to eating more.

Your provider will also examine your vital signs, and they may order certain blood tests. They'll use this complete profile to diagnose obesity and any related conditions you might have.

How is obesity treated?

Your healthcare provider will work with you to find a weight loss plan that works for you. Since everyone is different, it may take some trial and error to figure out which therapies work best:

Changing what you eat: You're unique. That means you should tailor any change in what you eat to what works for you. There are ways to make meals packed with healthy food. Your provider can suggest scientifically proven eating plans like the Mediterranean diet or the DASH diet. These aren't like other diets that have restrictive, negative aspects. They're more like a set of positive guidelines that can help you meet your nutrition goals.

Building activity into your day: Activity burns off calories and there are many ways to boost your activity

Mental health support: Counseling, support groups and cognitive behavioral therapy (CBT) can help support positive changes. They can also help you manage stress and address emotional and psychological factors that may be working against you.

Can obesity be prevented?

Preventing obesity is easier than treating it once it's taken hold. That's because your body manages your body mass by shifting gears as it balances your hunger signals against the amount of energy you use from your daily activity. Once your body establishes a new high "set point," it considers that to be your new baseline weight. That new set point may put your weight higher on the scale or the BMI table. Examining your habits and making reasonable changes now can help you prevent future obesity.

A4 CENTRAL OBESITY

Central obesity refers to a state of excessive accumulation of visceral fat, primarily in the abdominal area, which is associated with a decreased production of adiponectin and an increased risk of metabolic syndrome and related health conditions such as heart disease, stroke, and diabetes.

Influences on Central Obesity

Central obesity suggests increased visceral fat deposits, likely caused by increased production of peptides and other metabolic messengers. Hormonal influences most likely play a role in the distribution of fat. Central obesity is believed to result partly from increased androgenic effects, which is why men have a greater tendency for central obesity. Central obesity is also associated with hyperandrogenic states in women, such as polycystic ovary syndrome (PCOS). The increase in visceral deposition of fat that can occur after menopause in women may be related to a decrease in growth hormone and estrogen production.

Diabetes and Central Obesity

No specific sleep architecture abnormalities are associated with diabetes. Even hypoglycemic episodes during sleep are not apparently associated with EEG evidence of arousal.Periodic movements in sleep may be more common in patients with diabetes, and sleep may be disrupted in those with painful neuropathy. Sleep apnea is common in patients with type 2 diabetes, where the fundamental link between diabetes and sleep apnea is through a co-association with central obesity.

Central obesity is often a more crucial determinant of morbidity and mortality than total adiposity.Centrally obese individuals have an increased risk of cardiovascular and cerebrovascular disease, diabetes, hypertension, hyperlipidemia, hyperuricemia, and insulin resistance relative to peripherally obese individuals. This cluster of abnormalities is often labeled metabolic syndrome. Central obesity is the commonest metabolic abnormality in sleep apnea.The health risks of obesity and sleep apnea are similar, and data are complicated by mutually confounding variables.Multivariate analyses of data and CPAP intervention studies suggest that both sleep apnea and central obesity are additive in the pathogenesis of certain obesity-related morbidity. However, despite increasing research, several fundamental questions about the links between OSA, central obesity, and diabetes remain unanswered.

It is clear that central obesity is a powerful epidemiologic predictor of sleep apnea, and weight reduction may lead to marked improvement in sleep apnea severity and a parallel improvement in metabolic abnormalities. However, the data that address the reverse possibility—that sleep apnea may promote the

development of obesity—are more limited.Unfortunately, long-term prospective studies are lacking. It has been speculated that chronic intermittent hypoxia and sleep fragmentation over years in patients with sleep apnea can lead to changes in central control of energy regulation, appetite control, feeding, and metabolism, which would promote weight gain and thus worsen sleep apnea further.

However, if sleep apnea causes central obesity, then it would be expected that treatments that reverse sleep apnea would result in weight loss. Some studies suggest that nasal CPAP will reduce visceral fat deposits even without change in body mass index in patients with sleep apnea, but well-powered randomized controlled trials specifically addressing this issue are lacking. Most such trials with CPAP are short-term trials addressing hypertension or neurocognitive variables and do not report significant weight loss with short-term follow-up.

Metabolic Syndrome

Central obesity, insulin resistance, decreased glucose tolerance, and hyperlipidemia most often occur in the absence of elevated plasma glucocorticoids. This has been called the metabolic syndrome. Recent work indicates that obesity and metabolic syndrome can be produced by disordered intracellular metabolism of glucocorticoids. The enzyme 11β-hydroxysteroid dehydrogenase type 1 regulates the amount of glucocorticoid reaching its intracellular receptors by controlling the interconversion of active glucocorticoids and their inactivated forms. Transgenic mice that overexpress this enzyme only in white adipose tissue developed central obesity, metabolic syndrome, and increased plasma leptin and insulin but maintained normal plasma glucocorticoid levels. Thus, hepatic glucocorticoid metabolism may be a factor in human obesity in the absence of any sign of endocrine dysfunction. The transgenic mice also overate, perhaps in response to decreased circulating metabolic fuels secondary to increased lipogenesis.

Male Sexual Dysfunction

Central obesity is associated with both hypogonadism and erectile dysfunction. In the European Male Aging Study there was a significant positive correlation between obesity and severity of erectile dysfunction. Other studies have demonstrated that lifestyle changes to improve obesity lead to an improvement in ED when both conditions coexist. The presence of ED in an obese individual should be used by clinicians to convince an individual to make lifestyle changes with an improvement/resolution of their ED as a reward.

A5 CHILD OBESITY

Childhood obesity is a complex health condition that has many causes. If your child's weight is putting their health at risk, their healthcare provider can recommend a robust treatment plan to improve their physical health and well-being.

What is childhood obesity?

Childhood obesity is a complex chronic (long-term) condition that happens when your child is above a healthy weight for their age, height and sex.

The medical definition of childhood obesity is having a body mass index (BMI) at or above the 95th percentile for age and sex in children aged 2 years and older.

Children's BMI factors differ from adults. For children, BMI is age- and sex-specific because their body compositions naturally change as they age. Healthcare providers use special growth charts to assess a healthy BMI for children.

How common is childhood obesity?

Obesity is one of the most common childhood chronic conditions.

According to the Centers for Disease Control and Prevention (CDC) conducted from 2017 to 2020, obesity affected about 19.7% of children and adolescents aged 2 to 19 years in the United States. That's about 14.7 million children and adolescents.

Childhood obesity affects the following age groups:

- 12.7% of children aged 2 to 5.
- 20.7% of children aged 6 to 11.
- 22.2% of adolescents aged 12 to 19.

Childhood obesity is more common among certain populations. It affects:

- 26.2% of Hispanic children.
- 24.8% of non-Hispanic Black children.
- 16.6% of non-Hispanic white children.
- 9.0% of non-Hispanic Asian children.

Lastly, having overweight and obesity are more common in children who:

- Live in poverty.
- Live in under-resourced communities.
- Are part of families that have immigrated.
- Experience discrimination or stigma.

What causes childhood obesity?

Childhood obesity is a complex condition that has many contributing factors.

Your child needs a certain amount of calories for growth and development. But when they take in more calories than they use, their body stores the extra calories as body fat (adipose tissue).

Several factors also affect how much food we eat, the type of food we eat and how our body uses that energy. Every child's body — and situation — is unique. Some children are at a greater risk for weight gain than others. Obesity doesn't develop from laziness or a lack of willpower.

Genetics and epigenetics

Genetic factors can increase the likelihood that your child will have obesity. Children whose biological parents or siblings have obesity may be more likely to develop the condition themselves. Studies show that various genes may contribute to weight gain. But not all children with a family history of obesity will develop it.

Epigenetics is the study of how your behaviors and environment can affect the way your genes work. People, including children, who experience adversity — like trauma or violence — can have changes in their genes that affect their immune system and metabolism. These changes can increase your child's risk for having obesity due to how their body uses energy.

Other epigenetic factors that may increase your child's risk for having obesity include:

- Pre-pregnancy obesity of either or both biological parents.
- Gestational diabetes.
- Excessive weight gain during your pregnancy.

Family and home environment factors

Shared family behaviors and home environment factors can contribute to childhood obesity, including:

- The type of food parents and caregivers offer their children and how often.
- Having sugar-sweetened beverages.
- Eating larger portion sizes.
- Increased snacking behavior of highly processed foods.
- Dining out instead of cooking meals at home.
- Increased screen time.
- Lack of physical activity (sedentary behavior).
- Lack of quality sleep.
- Secondhand smoke exposure.
- Adverse childhood experiences (ACEs).

How is childhood obesity diagnosed?

Pediatricians typically diagnose overweight and obesity at well-child checks. They use BMI-for-age growth charts to measure size and growth patterns in children.

A high BMI may be a sign of high body fat. BMI doesn't measure body fat directly. But it alerts your child's provider that your child may need more tests to see if excess body fat is an issue. BMI percentile cutoffs define a level above which your child may be more likely to develop weight-related health issues.

Your child's pediatrician will do a physical exam and ask you questions about your child's health history, behaviors and environment. They'll likely order other tests, like blood or imaging tests, to check for possible underlying causes of obesity and/or any obesity-related health conditions.

Can I prevent childhood obesity?

There's no simple way to prevent childhood obesity. And it's important to remember that preventing childhood obesity isn't just your and your family's responsibility — it's the collective responsibility of federal and local governments, schools, communities and corporations. Several genetic and medication-based factors contribute to obesity as well. These factors are outside of your control.

One step you can take is to establish healthy eating habits and physical activity early. The eating habits your child picks up when they're young will help them maintain a healthy lifestyle when they're adults. If you're unsure how to select and prepare a variety of foods for your family, ask your child's healthcare provider. They can refer you to a registered dietitian for nutrition counseling. They can also point you in the direction of resources in your community that offer healthy food options.

Other recommendations for childhood obesity prevention include:

- Breastfeeding exclusively until around 6 months of age.
- Having fun physical activity daily.
- Limiting screen time to less than one to two hours per day.
- Avoiding sugar-sweetened beverages and limiting 100% fruit juice intake.

Check with your pediatrician for more information about these and other health-promoting recommendations.

A6 CAUSES OF OBESITY

What causes overweight and obesity?

Overweight and obesity can develop over time when you consume more calories than you use. This is also described as an energy imbalance: when your energy in (calories) does not equal your energy out (calories your body uses for things such as breathing, digesting food, and being physically active).

Your body uses certain nutrients, such as carbohydrates or sugars, proteins, and fats, from the foods you eat to make and store energy.

- Food is turned into energy for immediate use to power routine daily body functions and physical activity.
- Food is stored as energy for future use by your body. Sugars are stored as glycogen in the liver and muscles. Fats are stored mainly as triglyceride in fatty tissue.

An energy imbalance causes your body to store more fat than can be used now or in the future. But your risk of developing overweight or obesity is determined by more than how much you eat. It also includes the types and amount of food and drinks you consume each day, your level of physical activity (such as whether you sit at an office desk or are on your feet all day), and how much good-quality sleep you get each night.

All of these factors, as well as many others, can contribute to weight gain.

What raises the risk of overweight and obesity?

There are many risk factors for overweight and obesity. Some are individual factors like knowledge, skills, and behaviors. Others are in your environment, such as school, workplace, and neighborhood. Additionally, food industry practices and marketing as well as social and cultural norms and values can also impact your risk.

You may not be able to change all of your risk factors for overweight or obesity. But knowing your risk is important to help you take steps to reaching a healthy weight and lowering your risk for obesity-related health problems, such as heart disease.

Lack of physical activity

Lack of physical activity, combined with high amounts of TV, computer, video game, or other screen time has been associated with a high body mass index (BMI). Most adults need at least 150 minutes of aerobic activity a week. It is also recommended that adults do muscle-strengthening activities for major

muscle groups on 2 or more days each week, as these activities give additional health benefits. Children should get 60 minutes of aerobic activity each day. See the recommendations for physical activity for different age groups.

Unhealthy eating behaviors

Some unhealthy eating behaviors can increase your risk for overweight and obesity.

- **Eating more calories than you use:** The number of calories you need will vary based on your sex, age, and physical activity level. Find daily calorie needs or goals for adults as part the DASH Eating Plan. You can also find Tip Sheets for Parents for guidance on how many calories children need and ways to reduce screen time.
- **Eating too much saturated fat:** According to the Dietary Guidelines for Americansexternal link, the amount of saturated fat in your daily diet should be no more than 10% of your total calories. For a 2,000-calorie diet, that's about 200 calories or about 22 grams of saturated fat.
- **Eating foods high in added sugar:** On a daily basis, try to limit the amount of added sugar in your diet to no more than 10% of your calories.

Not getting enough good-quality sleep

Research has shown a link between poor sleep — not getting enough sleep or not getting enough good-quality sleep — and a high BMI. Regularly getting less than 7 hours of sleep per night can affect the hormones that control hunger urges. In other words, not getting good-quality sleep can make us more likely to overeat or not recognize our body's signals that we are full.

High amounts of stress

Long-term and even short-term stress can affect the brain and trigger your body to make hormones, such as cortisol, that control energy balances and hunger urges. These hormone changes can make you eat more and store more fat.

Health conditions

Some conditions, such as metabolic syndrome and polycystic ovary syndrome, cause people to gain weight. These medical conditions must be treated for a person's weight to come close to or into normal range.

Genetics

Some people are predisposed to being heavier. Researchers have found at least 15 gene that influence obesity. Studies show that genetics may play a more important role in people with obesity than in people who are overweight. For people with a genetic high risk for obesity, making healthy lifestyle changes can help lower that risk.

Medicines

Some medicines cause weight gain by disrupting the chemical signals that tell your brain you are hungry. These include:

- Antidepressants
- Antipsychotics
- Beta-blockers, which are used to treat high blood pressure
- Birth control
- Glucocorticoids, which are often used to treat autoimmune disease
- Insulin, which is a hormone taken to control blood sugar levels in people with diabetes

Talk to your provider if you notice weight gain while you are using one of these medicines. Ask whether there are other forms of the same medicine or other medicines that can treat your medical condition but have less of an effect on your weight.

Your environment

Your environment can contribute to unhealthy eating and a lack of physical activity. Your environment includes all of the parts where you live and work — your home, buildings in which you work or shop, streets, and open spaces. The types of restaurants and the amount of green space you have can contribute to overweight and obesity.

Studies have shown that access to sidewalks and green spaces can help people be more physically active, and grocery stores and farmers markets can help people eat healthier. On the other hand, people living in neighborhoods with more fast food restaurants and inaccessible or no sidewalks or bike paths are more likely to be overweight or obese.

B1 WEIGHT LOSS PHYSIOLOGY

Introduction

Body weight changes result from caloric excess or deficit. Weight gain results from a state of persistent energy excess. Weight loss occurs when energy expenditure surpasses caloric intake for a significant period. Physiologic processes and external factors like culture, illness, and environmental exposures impact body weight. The human body has a high tolerance for gradual changes either way. However, chronic energy imbalance produces systemic complications that, over time, can become fatal. This topic focuses on the mechanisms behind weight regulation and the role that appetite plays in it.

Clinical Significance

Weight regulation disorders manifest as extreme chronic weight changes with concomitant metabolic derangements. On one extreme is obesity, a condition marked by chronic caloric excess and weight gain. On the other is malnutrition, characterized by severe weight loss or poor weight gain from a chronically negative energy balance. Nutrient deficiencies commonly accompany malnutrition. Both obesity and malnutrition can result from the failure of central and peripheral body weight regulators.

Obesity

Obesity is an emerging epidemic in the modern world. The worldwide adult obesity burden has increased by 27.5% in the last 3 decades.The CDC reports that this condition had a prevalence rate of 42.4%. Appetite regulation plays a huge role in the development of obesity. The condition has various complications, such as type 2 diabetes mellitus, cardiovascular disorders, osteoarthritis, and obstructive sleep apnea.

Sleep disorders increase the risk of obesity and diabetes. Sleep deprivation and poor sleep quality increase appetite by reducing leptin and upregulating ghrelin and orexin. Sleep-deprived individuals also have reduced thyroid-stimulating hormone.

Chronic psychosocial stress positively correlates with weight gain. The sympathetic nervous system and hypothalamus-pituitary-adrenal axis are chronically hyperactive, leading to insulin resistance, hypercortisolism, central adiposity, visceral adiposity, and a preference for energy-dense foods.

The first line of therapy for weight management is lifestyle change and behavior modification, which may also involve cognitive behavioral therapy. Obesogenic factors must be identified and addressed in a multidisciplinary approach. Clinically, a 5-10% weight loss leads to significant cardiometabolic improvement

and must be achieved in 3-6 months before considering more aggressive strategies.

The second line of therapy is pharmacotherapy. Anti-obesity medications target various mechanisms promoting chronic caloric excess. For example, orlistat inhibits lipase action, blocking gastrointestinal fat absorption. The drug combinations phentermine/topiramate and naltrexone/bupropion target the brain's appetite-control centers. Incretin medications like tirzepatide and the GLP-1 analog semaglutide act centrally and peripherally.

Surgery is an option when health goals are not achieved after several months of lifestyle modification and pharmacotherapy. Techniques for weight loss include vertical gastric sleeve, Roux-en-Y gastric bypass, and adjustable gastric banding.

The vertical gastric sleeve decreases food intake by reducing stomach size. Ghrelin secretion abates, leading to appetite suppression. Roux-en-Y gastric bypass procedure achieves the highest weight benefit. Besides limiting nutrient absorption, post-surgical effects include increased GLP-1 secretion and improved glycemic control. Adjustable gastric bands also decrease stomach size.

Malnutrition

Severe weight loss may be unintentional or intentional. Unintentional causes result from food insufficiency and disease. Eating disorders are the most common cause of intentional weight loss.

Kwashiorkor and marasmus are conditions characterized by protein-energy malnutrition and associated with poor socioeconomic status. Young children are the most vulnerable. Kwashiorkor presents with widespread edema owing to severe protein deficiency. Marasmus is marked by emaciation but has a better prognosis than kwashiorkor. Both may be accompanied by vitamin deficiencies. Patients must be evaluated for emergent conditions like sepsis and heart failure and subsequently stabilized. Management includes careful refeeding, vitamin supplementation, treatment of co-existing illnesses, physical therapy, and guardian and patient education.

Anorexia nervosa and bulimia nervosa are eating disorders affecting young women more than men. About 5 million are diagnosed with an eating disorder every year. Anorexia nervosa patients have a history of severe fasting, excessive physical activity, or both. Being underweight is common. Bulimia nervosa patients are more likely to binge before purging or engaging in excessive physical activity. Body weight may be below normal, normal, or above normal. Management should address nutritional deficiencies and the underlying mental health condition.

B2 DEAD FOOD VS ALIVE FOOD

There are numerous ways to classify food—low fat, high sodium, low fiber, high sugar, clean, gluten free, vegetarian, lactose free, to name a few. But what if you were told the path to good health was to eat only "alive" food and avoid "dead" food?

Ditch the Dead Food

So, what exactly is a "dead" food? If it can sit on your counter for days or weeks and not go bad, then it's a dead food. These foods are refined, highly processed, often synthetic and have little-to-no nutritional value. Think about foods like cheese-flavored crackers, meal replacement bars, fruit snacks and flavored beverages.

Unfortunately, these processed, chemical-rich foods are pervasive in the diet. We want fast, convenient and tasty food and there's plenty on the supermarket shelves that fit the bill. And what has been the result of a diet full of dead foods? Rising rates of obesity, heart disease, diabetes and cancer, among other things.

Mainstream medicine is finally recognizing that processed and refined foods are linked to increased inflammation in the body. A steady diet of dead foods leads to chronic inflammation, which can result in increased blood pressure, weight gain, elevated blood sugar levels and arthritis, to name a few. The human body is not designed to function properly under stressful conditions (poor nutrition) and will react and respond to these inflammatory foods, which manifest itself in aches, pains, brain fog, poor sleep and hormonal imbalance, in addition to the aforementioned diseases.

But it doesn't have to be this way. Ditching the dead food for a diet rich in "alive" foods will put you on the path to better health.

Live Better With Alive Food

Let's get back to the basics to discover what "alive" foods are and how they help the body. A food that is "alive" is one that is as close to its original, natural form—plants (fruits and vegetables), nuts and seeds, fish, poultry and whole grains. These foods are rich in inflammation-fighting antioxidants and phytochemicals. They help the body produce and activate enzymes, which are necessary for hormone production and chemical reactions in the body. In addition to these foods, foods rich in probiotics and prebiotics are also considered "alive" as they help promote the healthy bacteria in your body that are the first line of your immune system. These foods include kefir, miso, bananas, asparagus and Jerusalem artichokes.

Choosing alive foods begins in the supermarket or at your local farmers market. First, head over to the produce section and fill your basket with a rainbow of

organic fruits and vegetables. Try to choose what's local and in season. Next, add protein sources, such as eggs, organic poultry and wild-caught, omega-3-rich fish, such as Alaskan salmon or Pacific halibut. The dairy section must be navigated carefully, as there are many foods with artificial colors, flavors and sweeteners lurking around. Choose kefir and organic plain yogurt that has live and active cultures. Finally, head to the middle of the store to pick up your whole grains, such as quinoa (it's really a seed but classified as a grain), brown rice, oats, nuts, nut butters, seeds and beans.

Another important tip for successfully choosing alive foods is to read labels. The ingredient list will tell you whether or not the item contains chemicals, preservatives or anything artificial. Generally, a product that comes in a box, bag, can or package will have some kind of preservatives to increase shelf life. If you can't pronounce an ingredient or have no idea what it is, you should probably put it back on the shelf. An item with a quick expiration date is more often "alive" because of the lack of additives. And most of the previously mentioned alive foods do not come in a package (fruits, veggies, poultry, fish). Beans (dry or canned), nuts (preferably raw), nut butters (again, raw is best), whole grains, and sprouted grain bread are some of the packaged "alive" foods that we recommend.

If you desire to make any dietary changes to eat healthier, but feel overwhelmed with how to do so, start out slowly. Change one meal at a time. Of course, cleaning out the refrigerator and pantry and filling them with healthier alternatives will make the transition much easier and allow for a greater level of success.

Changing your diet to ditch the dead food and instead focus on alive foods is the nutritional approach for decreasing inflammation, regaining your health, and looking and feeling your best.

B3 UPF – ULTRA PROCESSED FOODS

An ultra-processed food (UPF) is a grouping of processed food characterized by relatively involved methods of production. There is no simple definition of UPF, but they are generally understood to be an industrial creation derived from natural food or synthesized from other organic compounds. The resulting products are designed to be highly profitable, convenient, and hyperpalatable, often through food additives such as preservatives, colourings, and flavourings. UPFs have often undergone processes such as moulding/extruding, hydrogenation, or frying.

Concerns about food processing have existed since at least the Industrial Revolution.The origin of ultra-processed food is more recent: Some sources have described UPF as "predigested food".

The Nova classification for grouping unprocessed and processed foods beginning in 2010, whose definition of ultra-processing became the most widely accepted, refined through successive publications. The identification of ultra-processed foods, as well as the category itself, is a subject of debate among nutrition and public health scientists, and other definitions have been proposed.

A survey of systems for classifying levels of food processing in 2021 identified four 'defining themes':

- Extent of change (from natural state)
- Nature of change (properties, ingredients added)
- Place of processing (where/by whom)
- Purpose of processing (why, essential/cosmetic)

The high amount of processing lends ultra-processed food to be subject to different economic constraints compared to natural food.

Obesity and weight gain

Consumption of ultra-processed foods is strongly associated with obesity and weight gain. Individuals with diets high in ultra-processed foods consume approximately 500 more calories per day compared to those consuming unprocessed foods, resulting in around a pound of weight gain per week.

Ultra-processed foods are designed to be highly palatable, typically combining high levels of sugar, fat, and salt to enhance flavor and texture. These foods often lack fiber and protein, which are essential for promoting the feeling of fullness and help regulate appetite. Additionally, the high glycemic index of many ultra-processed foods can cause rapid spikes and crashes in blood sugar levels, which further stimulates hunger and overeating. Consuming relatively high levels of ultra-processed foods is linked to structural changes in brain regions that regulate appetite and reward. These brain changes are partly explained by heightened body fat and inflammation.

B4 VEGETARIAN VS NON - VEGETARIAN FOODS

Vegetarian Diet

A vegetarian diet focuses on plants for food. These include fruits, vegetables, dried beans and peas, grains, seeds and nuts. There is no single type of vegetarian diet. Instead, vegetarian eating patterns usually fall into the following groups:

- The vegan diet, which excludes all meat and animal products
- The lacto vegetarian diet, which includes plant foods plus dairy products
- The lacto-ovo vegetarian diet, which includes both dairy products and eggs

People who follow vegetarian diets can get all the nutrients they need. However, they must be careful to eat a wide variety of foods to meet their nutritional needs. Nutrients vegetarians may need to focus on include protein, iron, calcium, zinc and vitamin B12.

Non-Vegetarian Food

Non-vegetarian food (in Indian English sometimes shortened to non-veg food) contains meat (red meat, poultry, seafood, or the flesh of any other animal), and sometimes, eggs. The term is common in India, but not usual elsewhere. In the generally vegetarian environment of India, restaurants offering meat and fish usually have a "non-vegetarian" section of their menu, and may include the term (typically as "Veg and Non-veg") in their name-boards and advertising. When describing people, non-vegetarians eat meat and/or eggs, as opposed to vegetarians.But in India, consumption of dairy foods is usual for both groups.

Non-vegetarianism is the majority human diet in the world (including India). Non-vegetarians are also called omnivores in nutritional science.

By gender

Overall, 43% of Indian women and 49% of men consumed fish, chicken or meat weekly, according to the National Family Health Survey.

More men than women eat non-vegetarian food in India; almost three in ten women do not consume eggs (29%) and chicken, fish or meat (30%) compared to two in ten men who do not consume eggs (20%) and chicken, fish or meat (22%).

Among women between 15 and 45 years of age, 45% have milk and curd, 45% have pulses or beans and 47% have dark green, leafy vegetables daily while 37% eat eggs and 37% eat fish, chicken or meat weekly. Around half (52%) of them have fruits occasionally.

History

According to archeological finds, Indus Valley civilisation had dominance of meat diet of animals such as cattle, buffalo, goat, pig and chicken. Remnants of dairy products were also discovered. According to Akshyeta Suryanarayan et al., available evidence indicates culinary practices to be common over the region; food-constituents were dairy products (in low proportion), ruminant carcass meat, and either non-ruminant adipose fats, plants, or mixtures of these products. The dietary pattern remained same throughout the decline.

B5 OVEREATING PSYCHOLOGY

Binge eating disorder is the most common eating disorder that healthcare providers diagnose, although many people don't realize it's a disorder. It causes frequent episodes of binge eating — eating an unusually large quantity of food in one session and feeling unable to stop. Psychotherapy is the primary treatment.

What is binge eating disorder?

Binge eating disorder (BED) is a behavioral disorder characterized by chronic, compulsive overeating. While everyone overeats occasionally, an eating disorder is a condition that you live with every day. It feels like it controls you and interferes with your mental, emotional and physical well-being. Binge eating means consuming large quantities of food in a short period and feeling like you can't stop.

Many people may exhibit signs or symptoms of binge eating occasionally. When they begin to occur regularly (once a week or more), you may have a disorder. Environmental factors like stress and relationships can influence your behavior and affect your mental health. These factors may combine with other causes to push you over the edge from occasional disordered eating behavior to BED.

How common is binge eating disorder?

Binge eating disorder is the most common of all eating disorders, accounting for almost half of all diagnoses. In the U.S., it affects almost 3% of the population. It's more common in women than in men, by a ratio of about 3:2. It's also more common in teenagers than in adults, by a ratio of about 4:3.

Symptoms of binge eating disorder

Signs and symptoms of binge eating disorder may include:

- Eating past the point of satisfaction and to the point of discomfort.
- Eating too fast to notice how much you're eating or how it feels.
- Eating large amounts of food when you're not hungry or after recently finishing a meal.
- Eating in response to emotional stress (emotional eating).
- Experiencing guilt, remorse, shame and self-esteem issues related to binge eating.
- Eating alone and in secret and avoiding social eating.
- Having obsessive thoughts about food and specific food cravings.
- Hoarding and stashing food in hidden places to access later
- Frequently dieting, which may cause weight fluctuations or no weight loss.

Unlike bulimia nervosa, binge eating disorder doesn't involve purging calories, such as forced vomiting, misusing laxatives or exercising excessively after eating. A binge eating episode ends with eating.

On the other hand, some people with binge eating disorder are chronic dieters. They may attempt to restrict calories before lapsing into binge eating, or they may attempt to diet after a binge to make up for it.

What causes the urge to binge eat?

Many factors influence eating behavior, including psychology, biology and learned habits. What triggers you to binge eat might be different from what triggers the next person. Eating can release pleasure hormones in your brain (serotonin and dopamine,) which might encourage addictive tendencies. Eating can also be a way of escaping or numbing uncomfortable feelings or compensating for unmet needs.

What risk factors are associated with binge eating disorder?

You may be more likely to develop binge eating disorder if you have:

- A family pattern of disordered eating
- A family pattern of dysfunctional emotional coping
- A personal history of trauma or abuse
- A personal history of food insecurity
- A mental health condition, such as depression or anxiety
- Attention-deficit/hyperactivity disorder (ADHD)
- Substance use disorder (SUD)
- Body dysmorphic disorder (BDD)
- Executive dysfunction

How is binge eating disorder diagnosed?

Healthcare providers diagnose eating disorders by asking detailed questions about your behaviors, thoughts and feelings. You might be reluctant to open up about these details, but honesty is important to getting the right diagnosis.

Your provider will analyze your answers according to the criteria listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). The criteria to diagnose BED include:

- Eating a greater amount of food than most people would within a limited period (one to two hours).
- Feeling a sense of compulsion or lack of control associated with eating.
- Binge eating episodes occur at least once a week and have been going on for several months.
- Eating to the point of physical discomfort and/or emotional distress and self-loathing.

Either a mental healthcare practitioner or your primary care practitioner can make the diagnosis.

B6 SUPPLEMENT VITAMINS MINERALS

What are multivitamin/mineral (MVM) dietary supplements?

Multivitamin/mineral (MVM) supplements contain a combination of vitamins and minerals and sometimes other ingredients. People refer to them by many names, including multis and multiples or simply vitamins. Each of the vitamins and minerals in MVMs has a unique role in the body. For more information about each one, see our individual vitamin and mineral fact sheets.

MVMs cannot take the place of eating a variety of foods that are important to a healthy diet. Foods provide more than vitamins and minerals. They also have fiber and other ingredients that may benefit health.

What kinds of multivitamin/mineral supplements are available?

Many types of MVMs are available in stores and online. Companies choose which vitamins and minerals—and how much—to include in their products. There isn't a standard MVM or a standard list of ingredients.

Among the most common MVMs are basic, once-daily products that contain all or most vitamins and minerals in amounts close to what is recommended.

Some MVMs contain higher than recommended amounts of some vitamins and minerals. These products may come in packs of two or more pills to take each day.

Manufacturers promote some MVMs for specific purposes, such as better athletic performance or energy, weight control, improved immunity, or eye health. These products often contain herbal and other ingredients (such as green tea, coenzyme Q10, probiotics, or glucosamine) in addition to vitamins and minerals.

The recommended amounts of nutrients vary by age and sex and are known as Recommended Dietary Allowances (RDAs) and Adequate Intakes (AIs). However, supplement labels use the Daily Value (DV) for each nutrient, which is often, but not always, similar to the RDA or AI for that nutrient. The %DV for each nutrient will show you how much (what percentage) a serving of the product contributes to reaching the DV.

Should I take a multivitamin/mineral?

People who don't get enough vitamins and minerals from food alone, are on low-calorie diets, have a poor appetite, or avoid certain foods (such as strict vegetarians and vegans) might consider taking an MVM. Health care providers might also recommend MVMs to patients with certain medical problems.

Some people might benefit from taking MVMs or certain nutrients they contain. For example:

- If you might become pregnant, getting 400 mcg/day of folic acid from fortified foods and/or dietary supplements lowers your baby's risk of birth defects of the brain and spine.
- If you are pregnant, a daily prenatal MVM can help ensure you get enough folic acid, iron, iodine, and vitamin D during pregnancy. Your doctor might also recommend separate supplements of iodine and choline, which are often missing or in too small amounts in prenatal MVMs.
- If you are pregnant and eat a vegetarian or vegan diet, your doctor might suggest other nutrients including vitamin B12 and the omega-3 fatty acids DHA and EPA.
- Breastfed babies might also need a vitamin B12 supplement if their nursing mother is low in B12 or eats a vegan diet.
- Breastfed and partially breastfed infants should receive vitamin D supplements of 10 mcg (400 IU)/day, as should non-breastfed infants and toddlers who drink less than 1 quart per day of vitamin D-fortified formula or milk.
- If you are older than 50, you should get recommended amounts of vitamin B12 from fortified foods and/or dietary supplements because your body might not absorb enough of the B12 that is naturally found in food.
- If you are 60 or older, taking an MVM might help maintain or improve cognitive function, memory, and related mental skills.

Can MVMs be harmful?

Taking a basic MVM is unlikely to harm your health. However, if you consume fortified foods and drinks (such as cereals or beverages with added vitamins and minerals) or take other dietary supplements, make sure that the MVM you take doesn't cause your intake of any vitamin or mineral to go above the upper limits.

Smokers, and perhaps former smokers, should avoid MVMs with large amounts of beta-carotene and vitamin A because these ingredients might increase the risk of lung cancer.

If you get too much vitamin A during pregnancy, your baby may have an increased risk of birth defects. This risk does not apply to beta-carotene (the form of vitamin A in plant foods, such as carrots, and some dietary supplements).

B7 LOW CARB DIETS

Definition

A low-carb diet limits carbohydrates, often called carbs — such as those found in grains, starchy vegetables and fruit. A low-carb diet focuses on foods high in protein and fat. Many types of low-carb diets exist. Each diet has varying limits on the type and amount of carbs you can eat.

Purpose

A low-carb diet is generally used for weight loss. Some low-carb diets may have health benefits beyond weight loss, such as lowering your risk of type 2 diabetes and metabolic syndrome.

Why you might follow a low-carb diet

You might choose to follow a low-carb diet because you:

- Want a diet that limits some carbs to help you lose weight.
- Want to change your overall eating habits.
- Enjoy the type and amount of food used in low-carb diets.

Check with your health care provider before starting any weight-loss diet, especially if you have any health conditions, such as diabetes or heart disease.

Diet details

A low-carb diet limits the amount of carbohydrates you eat. Carbs are grouped as:

- Simple natural, such as lactose in milk and fructose in fruit.
- Simple refined, such as table sugar.
- Complex natural, such as whole grains or beans.
- Complex refined, such as white flour.

Common sources of natural carbohydrates include:

- Grains.
- Fruits.
- Vegetables.
- Milk.
- Nuts.
- Seeds.
- Legumes, such as beans, lentils and peas.

In general, you digest complex carbs more slowly. Complex carbs also have less effect on blood sugar than refined carbs do. They also offer fiber.

Refined carbs such as sugar or white flour are often added to processed foods. Examples of foods with refined carbs are white breads and pasta, cookies, cake, candy, and sugar-sweetened sodas and drinks.

The body uses carbs as its main energy source. During digestion, complex carbs are broken down into simple sugars, also called glucose, and released into your blood. This is called blood glucose.

Insulin is released to help glucose enter the body's cells, where it can be used for energy. Extra glucose is stored in the liver and in muscles. Some is changed to body fat.

A low-carb diet is meant to cause the body to burn stored fat for energy, which leads to weight loss.

Results

Weight loss

Most people can lose weight if they limit calories and boost their physical activity. To lose 1 to 1.5 pounds (0.5 to 0.7 kilograms) a week, you need to eat 500 to 750 fewer calories each day.

Low-carb diets, especially very low-carb diets, may lead to greater short-term weight loss than do low-fat diets. But most studies have found that at 12 or 24 months, the benefits of a low-carb diet aren't very large.

Cutting calories and carbs may not be the only reason for the weight loss with low-carb diets. Some studies show that you may shed some weight because the extra protein and fat helps you feel full longer. Feeling full longer helps you eat less.

Other benefits

Low-carb diets that focus on healthy sources of carbs, fat and protein may help lower the risk of type 2 diabetes and heart disease. In fact, almost any diet that helps you shed excess weight may improve blood sugar and cholesterol levels, at least in the short term.

Risks

A sudden and large drop in carbs can cause short term side effects, such as:

- Constipation.
- Headache.
- Muscle cramps.

B8 HIGH FIBER FOODS

Fiber is found mainly in plant foods such as fruits, vegetables, whole grains and members of the bean family called legumes. Fiber may be best known for its ability to prevent or relieve constipation. But foods with fiber can have other good effects as well. They can help you stay at a healthy weight and lower the risk of diabetes, heart disease and some types of cancer.

Choosing tasty foods that provide fiber isn't hard. Find out how much dietary fiber you need, which foods have it, and how to add them to meals and snacks.

What is dietary fiber?

Dietary fiber is a nutrient known as a carbohydrate. Fiber includes the parts of plant foods that the body can't digest or absorb. This makes it different from nutrients such as fats, proteins, and other carbohydrates including starches and sugars. The body breaks down these nutrients and absorbs them. Instead, fiber passes somewhat intact through the stomach, small intestine and colon and out of the body.

There are two main types of fiber:

Soluble fiber. This type of fiber dissolves in water. It forms a gel-like material in the stomach that slows down digestion. It can help lower cholesterol and blood sugar. Soluble fiber is found in oats, peas, beans, apples, bananas, avocados, citrus fruits, carrots, barley and psyllium.

Insoluble fiber. This type of fiber doesn't dissolve in water. It supports the movement of material through the digestive system and adds bulk to stool. So it can be helpful for people who have constipation or don't regularly pass stool. Some good sources of insoluble fiber are whole-wheat flour, wheat bran, nuts, beans, and vegetables such as cauliflower, green beans and potatoes.

Most high-fiber plant foods contain both soluble and insoluble fiber. The amount of each type of fiber varies with the type of plant, such as whether it's a fruit, vegetable or whole grain. But you can get both types of fiber by eating a variety of fiber-rich foods.

Your best fiber choices

Nutritious foods that can help you get more daily fiber include:

- Whole-grains such as barley, bulgur, brown rice, and whole-wheat bread or pasta.
- Fruits.
- Vegetables.
- Beans, peas and other legumes.
- Nuts and seeds.

Refined or processed foods usually are lower in fiber. The grain-refining process removes the outer coat, called bran, from the grain. That lowers the amount of fiber and other nutrients in the grain.

Examples of refined grains include white bread, pasta and cereals that aren't made with whole grains. Also, removing the skin from fruit or the pulp from fruit juice lowers fiber. Enriched foods have some of the B vitamins and iron added back after processing, but not the fiber.

Healthy weight and fiber

High-fiber foods tend to be more filling than low-fiber foods. So you're likely to eat less and stay satisfied longer. High-fiber foods also tend to take longer to eat and to be less energy dense than low-fiber foods. That means they have fewer calories for the same volume of food.

How much fiber do you need?

The National Academy of Medicine gives the following daily fiber recommendations for adults:

- 21 grams for women older than age 50.
- 25 grams for women age 50 or younger.
- 30 grams for men older than age 50.
- 38 grams for men age 50 or younger.

B9 COFFEE & TEA

Can coffee help with weight loss?

Coffee contains caffeine, one of the few substances known to help mobilize fats from your fat tissues and increase metabolism.

According to research, coffee may have a beneficial effect for people who want to lose weight. In the 2021 review of studies, the authors suggest that coffee can prevent and reduce fat stores in the body by different factors, such as its:

- action on the gastrointestinal microbiota, which can influence obesity
- influence on proteins involved in the production of lipids in cells
- inhibition of adipocytes, which are cells in your body that store fat

Due to its antioxidant and anti-inflammatory properties, coffee may also help prevent certain conditions such as:

- metabolic syndrome
- cardiovascular diseases
- type 2 diabetes
- obesity

The researchers emphasized that the anti-obesity effects of tea and coffee were observed with consuming large amounts of the drink, or about 3 to 6 cups daily.

A 2019 review of studies also concluded that caffeine intake can promote:

- weight loss
- decrease in BMI
- fat reduction

The 6 Best Teas to Lose Weight and Belly Fat

Some studies have even found that tea may enhance weight loss and help reduce belly fat. Certain types have been found to be more effective than others at achieving this.

Below are 6 of the best teas for increasing weight loss and decreasing body fat.

1. Green tea

Green tea is one of the most well-known types of tea, and is linked with many health benefits.

It’s also one of the most effective teas for weight loss. There is substantial evidence linking green tea to decreases in both weight and body fat.

Green tea could help reduce body weight, body mass index (BMI), and belly fat in people with type 2 diabetes .

The review also noted that the beneficial effects of green tea were observed at doses lower than 800 milligrams (mg) per day in studies lasting 8 weeks or longer.

It's believed that catechins — which are naturally occurring antioxidants found in green tea — could help increase metabolism and fat burning, resulting in weight loss.

2. Puerh tea

Also known as pu'er or pu-erh tea, puerh tea is a type of Chinese black tea that has been fermented.

It is often enjoyed after a meal, and has an earthy aroma that tends to develop the longer it's stored.

Some animal studies have shown that puerh tea may help lower blood sugar and regulate fatty acid metabolism.

Other evidence suggests that it may also support weight loss. In fact, one study found that daily consumption of puerh tea was associated with reductions in body weight, BMI, triglycerides, and cholesterol levels.

3. Black tea

Black tea is a type of tea that has undergone more oxidation than other types, such as green, white, or oolong teas.

Oxidation is a chemical reaction that happens when the tea leaves are exposed to the air, resulting in browning that causes the characteristic dark color of black tea.

Several studies have found that black tea could be effective when it comes to weight control.

4. Oolong tea

Oolong tea is a traditional Chinese tea that has been partially oxidized, putting it somewhere between green tea and black tea in terms of oxidation and color.

It is often described as having a fruity, fragrant aroma and a unique flavor, though these can vary significantly depending on the level of oxidation.

Several studies have shown that oolong tea could help enhance weight loss by improving fat burning and speeding up metabolism.

In one older study, 102 people with overweight or obesity drank oolong tea every day for 6 weeks, which may have helped reduce both their body weight

and body fat. The researchers proposed the tea did this by improving the metabolism of fat in the body.

Another study found that drinking oolong tea twice daily for 14 days increased fat burning by 20%, which could theoretically lead to weight loss.

While more studies on the effects of oolong tea are needed, these findings show that oolong could be potentially beneficial for weight loss.

5. White tea

White tea stands out among other types of tea because it is minimally processed and is harvested while the tea plant is still young.

White tea has a distinct flavor very different from other types of tea. It tastes subtle, delicate, and slightly sweet.

Though further research is needed, white tea could also help when it comes to losing weight and body fat.

Studies show that white tea is rich in catechins, which may help enhance weight loss.

6. Herbal tea

Herbal teas involve the infusion of herbs, spices, and fruits in hot water.

They differ from traditional teas because they do not typically contain caffeine, and are not made from the leaves of Camellia sinensis.

Popular herbal tea varieties include rooibos tea, ginger tea, rosehip tea, and hibiscus tea.

Although the ingredients and formulations of herbal teas can vary significantly, some studies have found that herbal teas may help with weight reduction and fat loss.

One animal study found that high doses of hibiscus tea reduced BMI and could protect against obesity and oxidative stress in rats fed a high sugar diet.

Rooibos tea is another type of herbal tea that may be especially effective when it comes to fat burning.

In fact, a 2014 test-tube study showed that rooibos tea increased fat metabolism and helped block the formation of fat cells.

However, further studies in humans are needed to look into the effects of herbal teas like rooibos on weight loss.

B10 AVOID ALCOHOL

Weight loss and alcohol

If you are trying to lose weight, you can boost your efforts by cutting back on alcoholic drinks. Alcohol can cause weight gain in a couple of ways. First, alcohol is high in calories. Some mixed drinks can contain as many calories as a meal, but without the nutrients. Second, you also may make poor food choices when you drink.

While you do not have to entirely cut out alcohol, you may need to consume it more mindfully. You should watch the number, and type, of drinks you choose. You will also want to keep an eye on how drinking affects your eating habits.

Calories and Portions Count

So, how much can you drink if you are trying to lose weight?

Health experts recommend that anyone who drinks should do so in moderation. This means no more than 1 drink per day for women and no more than 2 drinks per day for men. You may want to drink even less than that to lose weight. Keep in mind that alcohol has empty calories. This means it has calories (7 per gram versus 4 per gram for carbohydrate and protein) but no nutrients. In order to drink alcohol while cutting back on calories, you need to plan it into your daily calorie count so you do not go over. Remember that when you drink alcohol, you are replacing potentially healthy, and filling, food with calories that will not fill you up.

When choosing what to drink, check serving size and calories. Here is a quick comparison of some common alcoholic drinks:

- Regular beer, about 150 calories for a 12-ounce (355 mL) glass
- Light beer, about 100 calories for a 12-ounce (355 mL) glass
- Beer, higher alcohol or craft, 170 to 350 calories for a 12-ounce (355 mL) glass
- Wine, about 100 calories for a 5-ounce (145 mL) glass
- Distilled alcohol (gin, rum, vodka, whiskey), about 100 calories for a 1.5-ounce (45 mL) serving
- Martini (extra dry), about 140 calories for a 2.25-ounce (65 mL) glass
- Pina colada, about 380 calories in a 7-ounce (207 mL) glass

Pay attention to what else goes in your drink. Many mixed drinks include juices, simple syrup, or liqueur, which add extra calories quickly. Look for lower calorie options, such as a splash of juice and soda water. You may want to skip mixed drinks completely and stick with beer or wine.

Portion size is something else you should keep an eye on. Know what a standard drink looks like:

- 12 ounces (355 mL) of beer
- 5 ounces (145 mL) of wine
- 1.5 ounces (45 mL, or one shot) of hard liquor

The sizes of alcoholic drinks at a restaurant or bar are often larger than the standard amounts listed above. In some cases, 1 drink may actually have 2 or more servings of alcohol and calories. If you are served a drink that is larger than the standard size, skip a second drink. At home, use a jigger when mixing drinks, and serve them in smaller glasses. It will feel like you are having more.

Eat Before you Drink

Drinking on an empty stomach will make you feel tipsy more quickly. This can lead to eating or drinking more than you want to. Having some food before you drink will help your stomach absorb the alcohol more slowly and help you make better choices.

Studies show that people tend to make poor food choices when drinking alcohol. To avoid piling on the calories after a drink or two, have some healthy snacks ready to eat when you get home or make plans to have a healthy meal after your drink. Good snack choices include fruit, air-popped popcorn, or hummus and veggies.

B11 NO SMOKING

Abstract

Our aim was to critically evaluate the relations among smoking, body weight, body fat distribution, and insulin resistance as reported in the literature. In the short term, nicotine increases energy expenditure and could reduce appetite, which may explain why smokers tend to have lower body weight than do nonsmokers and why smoking cessation is frequently followed by weight gain. In contrast, heavy smokers tend to have greater body weight than do light smokers or nonsmokers, which likely reflects a clustering of risky behaviors (eg, low degree of physical activity, poor diet, and smoking) that is conducive to weight gain. Other factors, such as weight cycling, could also be involved. In addition, smoking increases insulin resistance and is associated with central fat accumulation. As a result, smoking increases the risk of metabolic syndrome and diabetes, and these factors increase risk of cardiovascular disease. In the context of the worldwide obesity epidemic and a high prevalence of smoking, the greater risk of (central) obesity and insulin resistance among smokers is a matter of major concern.

Introduction

Smoking and obesity are leading causes of morbidity and mortality worldwide. The co-occurrence of overweight and smoking has substantial consequences for health. According to the Framingham study, the life expectancy of obese smokers was 13 years less than that of normal-weight nonsmokers. In the same cohort, one-third to one-half of obese smokers died between the ages of 40 and 70 years, whereas only 10% of normal-weight nonsmokers did so Percentages of the participants in the initial Framingham cohort study who died between age 40 and 70 years according to smoking and body-weight category. normal-weight, overweight,obese.

Smoking and body weight

Numerous cross-sectional studies indicate that body weight, or body mass index (BMI; in kg/m2), is lower in cigarette smokers than in nonsmokers. In the World Health Organization Monitoring Cardiac Disease (ie, WHO MONICA) surveys, BMI was lower in smokers than in nonsmokers in 20 (men) and 30 (women) of the 42 populations, and there was no population in which smokers had a higher BMI than did nonsmokers. In the second National Health and Nutrition Examination Survey (ie, NHANES II) study (1976–1980), smokers weighed less than nonsmokers, and body leanness increased with the duration of smoking.

Smoking's effect on body weight could lead to weight loss by increasing the metabolic rate, decreasing metabolic efficiency, or decreasing caloric absorption (reduction in appetite), all of which are associated with tobacco use. The metabolic effect of smoking could explain the lower body weight found in

smokers. Smoking a single cigarette has been shown to induce a 3% rise in EE within 30 min. Smoking 4 cigarettes each of which contained 0.8 mg nicotine increased resting EE by 3.3% for 3 h. In regular smokers whose metabolism was assessed in a metabolic ward, smoking 24 cigarettes in 1 day increased the total EE from 2230 to 2445 kcal/d, and stimulation of the sympathetic nervous system activity could be involved. The effect of smoking on EE was weaker among obese subjects, and it also depended on the degree of physical activity and fitness. Few studies have evaluated the chronic metabolic effects of smoking, and the results have conflicted. After 30 days of smoking cessation, the resting metabolic rate in female quitters was shown to be 16% lower than it had been when they were smoking, and an increase in body weight was attributable to a decrease in resting metabolic rate and an increase in caloric intake. Other researchers did not find any change in resting EE after smoking cessation. Smokers may be at higher risk of hyperthyroidism than are nonsmokers, which also could increase metabolic rate.

Effect of smoking initiation on body weight

Cross-sectional studies indicate that mean BMI tended to be lower among smokers than among nonsmokers in many populations. One would expect that, because of the metabolic and possibly anorexic effects of smoking, those who initiate smoking during the study (called "smoking initiators") would gain less body weight over time than would nonsmokers. However, few studies have prospectively assessed changes in body weight after smoking initiation. Whereas some studies reported that initiators and smokers had a lower weight gain over time than did nonsmokers. Some of these studies had a large sample size; however, most included a modest number of smoking initiators. The Nurses' Health Study had a long follow-up and was sufficiently large to allow comparison of various categories of smokers and nonsmokers. Age- and baseline body weight–adjusted estimates were reported; both factors were major confounders of the relation between smoking and change in body weight. An 8 years follow-up of 55 000 women showed that nonsmokers had a lower weight gain than did smoking initiators or continuous smokers. Heavy smokers gained more weight than did light smokers in that cohort. In the study by Klesges et al, 5115 adults aged 18–30 years were followed for 7 years, and estimates were adjusted for age and baseline body weight, as well as for education, physical fitness, and alcohol and fat intake. Among whites, weight gain was similar in smoking initiators and nonsmokers, which indicated that smoking had no weight gain–attenuating effect. In contrast, among African Americans, weight gain was lower in smoking initiators than in nonsmokers.

C1 SEDENTARY LIFESTYLE

Abstract

Whether obesity is a cause or a consequence of a sedentary lifestyle has not yet been fully elucidated, which leaves uncertainty about the direction of causality.

Objective

We aimed to assess the longitudinal associations between objectively measured time spent being sedentary (sedentary time) and obesity indicators.

Design

The study was a prospective, population-based cohort study in 393 middle-aged healthy whites (n = 176 M, 217 F). Sedentary time (% of daytime hours) was measured by individually calibrated monitoring of the heart rate. Body weight (BW), body mass index (BMI), and waist circumference (WC) were assessed by standard clinical procedures. Fat mass (FM) was assessed with bioimpedance. All measurements were collected at baseline and at 5.6-y follow-up.

Results

At baseline, sedentary time was significantly correlated with FM (partial r = 0.10, P = 0.043) and WC (partial r = 0.11, P = 0.027) after adjustment for sex and age. At follow-up, sedentary time was significantly correlated with BW (partial r = 0.19, P < 0.0001), BMI (partial r = 0.20, P < 0.0001), WC (partial r = 0.15, P = 0.003), and FM (partial r = 0.19, P < 0.0001). Sedentary time did not predict any of the obesity indicators at follow-up. In contrast, BW (β = 0.33; 95% CI: 0.15, 0.50), BMI (1.10; 0.58, 1.63), FM (0.59; 0.11, 0.40), and WC (0.44; 0.23, 0.66) predicted sedentary time at follow-up after adjustment for sex, baseline age, baseline sedentary time, baseline physical activity energy expenditure, and follow-up time.

Conclusion

BMI, FM, and WC may predict sedentary time, but our results do not suggest that sedentary time predicts future obesity.

C2 EXERCISE

Being active is vital to losing weight and keeping it off. When active, the body uses more energy in the form of calories. And burning more calories than you take in leads to weight loss.

To lose weight, most people need to cut the number of calories they eat and move more. This is according to the 2020-2025 Dietary Guidelines for Americans. Most often, that means cutting daily calories by 500 to 750 to lose 1 1/2 pounds (0.7 kilograms) a week.

Other factors might be involved in losing weight. Because of changes to the body over time, you might need to cut calories more as you age to keep losing weight or to stay at the same weight.

Diet or exercise: Does one matter more?

Both are important. Diet affects weight loss more than physical activity does. Physical activity, including exercise, has a stronger effect in keeping weight from coming back after weight loss.

Losing weight with diet alone and without physical activity can make people weaker. This is because of age-related losses in bone density and muscle mass. Adding resistance training and aerobic exercise to a weight-loss program helps prevent the loss of bone and muscle.

These are the exercise guidelines for most healthy adults from the U.S. Department of Health and Human Services:

Aerobic activity. Get at least 150 minutes of moderate aerobic activity a week. Or get 75 minutes of vigorous aerobic activity a week. You also can get an equal mix of the two types.

Aim to exercise most days of the week. For even more health benefits, strive for 300 minutes a week or more of moderate aerobic activity or 150 minutes of vigorous activity. Exercising this much may help with weight loss or keeping off lost weight. But even small amounts of physical activity can be helpful. Being active for short periods of time during the day can add up and give you great health benefits.

Strength training. Do strength training exercises for all major muscle groups at least two times a week. One set of each exercise is enough for health and fitness benefits. Use a weight or resistance level heavy enough to tire your muscles after about 12 to 15 repetitions.

Moderate aerobic exercise includes activities such as brisk walking, biking, swimming and mowing the lawn.

Vigorous aerobic exercise includes activities such as running, swimming hard laps, heavy yardwork and aerobic dancing.

Strength training can include use of weights or weight machines, your own body weight, resistance tubing, or activities such as rock climbing.

How much am I burning?

This list shows how many calories are burned while doing certain exercises for one hour. This is based on a person who weighs 160 pounds (73 kilograms). The calories you burn depend on the exercise you do, how hard you do it, how much you weigh and other factors.

Remember, to lose weight or to keep weight from creeping up on you as you age, you need to eat less and move more. Moving more means adding more physical activity into your life.

C3 BRISK WALKING

Can I lose weight if my only exercise is walking?

You might be able to lose weight by walking. But it depends on how long and how intensely you walk and what your diet's like.

A combination of physical activity and cutting calories seems to help much more with weight loss than does exercise alone.

Physical activity, such as walking, is important for weight control because it helps you burn calories. If you add 30 minutes of brisk walking to your daily habits, you could burn about 150 more calories a day. Of course, the more you walk and the quicker your pace, the more calories you'll burn.

For most healthy adults, the Department of Health and Human Services recommends these exercise guidelines:

Aerobic activity. Get at least 150 minutes of moderate aerobic activity a week. Or get at least 75 minutes of vigorous aerobic activity a week. You also can get an equal mix of the two types. Aim to exercise most days of the week.

For even more health benefits, get 300 minutes a week or more of moderate aerobic activity. Exercising this much may help with weight loss or keeping off lost weight. But even small amounts of physical activity can be helpful. Being active for short periods of time during the day can add up and have health benefits.

Strength training. Do strength training exercises for all major muscle groups at least two times a week. One set of each exercise is enough for health and fitness benefits. Use a weight or resistance level heavy enough to tire your muscles after about 12 to 15 repetitions.

But balance is important. Overdoing it can raise your risk of soreness, injury and burnout. If you're new to regular exercise, you may need to start out with short walks or walking at a light intensity. Then slowly work up to longer walks or more moderate or vigorous activity.

Once you've lost weight, exercise is even more important. Regular physical activity helps keep the weight off. In fact, studies show that people who keep off weight they've lost over the long term get regular physical activity.

So keep walking, but make sure you also eat a healthy diet. For example, eat a variety of fruits, vegetables and whole grains. And limit saturated fats and added sugars.

C4 INTERMITTENT FASTING

The intermittent fasting weight loss strategy involves setting periods where you avoid eating. This often results in a calorie deficit and hormonal changes that can help people lose weight.

Intermittent fasting is an eating pattern that involves regular, short-term fasts — or periods of minimal or no food consumption.

Intermittent fasting is often a weight loss intervention. Fasting for short periods helps people eat fewer calories, which may result in weight loss over time.

Intermittent fasting may also help modify risk factors for health conditions like diabetes and cardiovascular disease, such as lowering cholesterol and blood sugar levels.

This article explores everything you need to know about intermittent fasting and weight loss.

Intermittent fasting helps you reduce calories and lose weight

The main reason that intermittent fasting works for weight loss is that it helps you eat fewer calories.

All of the different protocols involve skipping meals during the fasting periods.

Unless you compensate by eating much more during the eating periods, you'll consume fewer calories.

A 2020 review of research determined that in their review of 27 trials, weight loss ranged from 0.8% to 13.0% of participants' body weight at the start of the trials, which lasted between 2 and 12 weeks.

Choosing your intermittent fasting plan

There are several different intermittent fasting methods. Popular options include:

- the 16:8 method
- the 5:2 diet
- the Warrior diet
- Eat Stop Eat
- alternate-day fasting (ADF)

The 16/8 method

The 16/8 intermittent fasting plan restricts food consumption and calorie-containing beverages to a set window of 8 hours per day. It requires abstaining from food for the remaining 16 hours.

The 16/8 method is flexible and based on a time-restricted eating (TRE) model. You can choose any 8-hour window to consume calories.

Some people skip breakfast and eat from noon to 8 p.m., while others avoid eating late and stick to a 9 a.m. to 5 p.m. schedule.

Research indicates that time-restricted eating patterns such as the 16/8 method may prevent hypertension and reduce the amount of food consumed, leading to weight loss .

A 2023 review of research found that the 16/8 method and 16/8 combined with restricting calories were effective strategies for weight control in adults with overweight or obesity. An eating window starting before noon led to greater weight loss than one that began after noon. The researchers also noted it may have positive effects on glucose metabolism.

The 5:2 method

The 5:2 diet is a straightforward intermittent fasting plan.

Five days per week, you eat as you typically do and don't restrict calories. Then, on the other two days of the week, you reduce your calorie intake to one-quarter of your daily needs.

According to a 2018 study, the 5:2 diet is as effective as daily calorie restriction for weight loss and blood glucose control among those with type 2 diabetes.

Another study found that the 5:2 diet was just as effective as continuous calorie restriction for weight loss and the prevention of metabolic diseases like heart disease and diabetes.

With the 5:2 diet, you pick which days you fast, and there are no rules regarding what or when to eat on full-calorie days. However, choosing a balanced diet of nutritious whole foods may help support weight loss and overall health.

Eat Stop Eat

Eat Stop Eat is an unconventional approach to intermittent fasting popularized by Brad Pilon, author of the book "Eat Stop Eat."

This intermittent fasting plan involves identifying one or two non-consecutive days per week during which you abstain from eating for 24 hours.

During the remaining days of the week, you can eat freely, but it's recommended to eat a well-rounded diet and avoid overconsumption.

The rationale behind a weekly 24-hour fast is that consuming fewer calories will lead to weight loss.

Fasting for up to 24 hours can lead to a metabolic shift that causes your body to use fat as an energy source instead of glucose.

More research is needed regarding the Eat Stop Eat diet to determine its potential health benefits and weight loss properties.

Alternate-day fasting

Alternate-day fasting is an intermittent fasting plan with an easy-to-remember structure. On this diet, you fast every other day but can follow your typical eating plan on the non-fasting days.

Alternate-day fasting has proven weight loss benefits.

An older randomized pilot study from 2016 comparing alternate-day fasting to a daily caloric restriction in adults with obesity found both methods to be equally effective for weight loss.

Another study found that participants consumed 37% fewer calories and lost an average of 7.7 pounds (3.5 kg) after alternating between 24 hours of fasting and 24 hours of unlimited eating over 4 weeks .

If you want to maximize weight loss, alternate-day fasting and exercise can help and support cardiovascular health.

The Warrior diet

The Warrior Diet is an intermittent fasting plan based on the eating patterns of ancient warriors.

The Warrior Diet is a bit more extreme than the 16:8 method but less restrictive than the Eat Stop Eat method.

It consists of eating very little for 20 hours during the day and then eating as much food as desired throughout a 4-hour window at night.

The Warrior Diet encourages dieters to consume small amounts of dairy products, hard-boiled eggs, raw fruits and vegetables, and non-calorie fluids during the 20-hour fast period.

After this 20-hour fast, people can essentially eat anything they want for a 4-hour window, but unprocessed, healthy, and organic foods are recommended.

A 2020 study determined that fasting with a 4-four feeding window did not have benefits over fasting with a 6-hour feeding window.

More research is needed on the Warrior Diet to understand its benefits for weight loss.

The Warrior Diet may lead to disordered eating patterns. It’s best to talk with a doctor to see whether this eating plan is right for you.

C5 DIETING

What's the best diet for weight loss?

It's a question on the minds of most people once they've decided they need to shed some pounds: what is the best diet for weight loss? While that's not an unreasonable question, it often implies an approach that is less than optimal, which is to plan on adopting a radically restrictive mode of eating for a while until the weight is lost, and then going back to eating as normal. Instead of embracing fad diets, people who have lost weight — and kept it off — usually have made a permanent shift toward healthier eating habits. Simply replacing unhealthy foods with healthy ones — not for a few weeks, but forever — will help you achieve weight loss while also offering numerous other benefits.

A healthy diet favors natural, unprocessed foods over prepackaged meals and snacks. It is balanced, meaning that it provides your body with all the nutrients and minerals it needs to function best. It emphasizes plant-based foods, especially fruits and vegetables, over animal foods. It contains plenty of protein. It is low in sugar and salt. It incorporates healthy fats including fish, olive oil, and other plant-derived oils.

Here are a few examples of healthy meals for weight loss. For breakfast, a bowl of bran flakes with sliced strawberries and walnuts with nonfat milk. For lunch, a turkey sandwich on wheat with vegetables and an olive oil and vinegar dressing. For dinner, a salmon steak on a bed of spinach.

You don't have to cut out snacks in order to eat a healthy diet, either. Healthy snacks for weight loss include almonds or pistachios, string cheese with an apple, Greek yogurt, or a banana with peanut butter.

Before you begin your weight-loss journey, do some brainstorming about the kinds of healthy foods you enjoy so that you can have lots of choices as you plan your meals and snacks. Remember that the best diet is the one you'll stick to, so don't rush out and buy a bunch of "health foods" that you know you'll never eat.

What's a high-fat weight loss diet?

It sounds counterintuitive, but many people find success losing weight, especially initially, by eating more fat, not less. Called a ketogenic or Keto diet, this method requires shifting the main source of calories over to fatty foods — between 75% and 90% of what you eat, with only 10% to 20% of your calories coming from protein and a mere 5% from carbohydrates. The theory is that by eating so many healthy fats and restricting carbohydrates, you enter an altered metabolic state in which you force your body to begin relying on fat for energy, burning away your fat stores instead of sugar for fuel.

Research does show that keto is an effective way to jump-start weight loss and improve blood-sugar levels. However, it is hard to maintain, and to date we are lacking long-term studies that show it to be a sustainable eating pattern for keeping weight off.

C6 PROTEIN INTAKE

How Protein Can Help You Lose Weight Naturally

Increasing the amount of protein you eat may help support weight loss by regulating certain hormones and helping you feel fuller longer, among other benefits.

Protein plays a key role in supporting weight management and overall health.

A high protein intake boosts metabolism, reduces appetite, and affects several weight-regulating hormones.

Protein can help you lose weight and belly fat, and it works via several different mechanisms.

This is a detailed review of the effects of protein on weight loss.

Protein changes the levels of several weight-regulating hormones

Your weight is actively regulated by your brain, particularly by an area called the hypothalamus.

To determine when and how much you should eat, your brain processes multiple types of information.

Some of the most important signals to your brain come from hormones that change in response to feeding.

A higher protein intake actually increases your levels of the satiety (appetite-reducing) hormones GLP-1, peptide YY, and cholecystokinin while reducing your levels of the hunger hormone ghrelin.

If you replace some of the carbs and fat in your diet with protein, you may experience less hunger and feel greater satiety.

By modifying the levels of appetite-regulating hormones, protein may reduce your hunger and help you feel fuller longer, meaning you may end up eating fewer calories.

Protein may support weight loss without conscious calorie restriction

Protein works on both sides of the "calories in versus calories out" equation. Eating more protein may make it easier to naturally reduce the number of calories you consume while increasing the number of calories you burn.

For this reason, it's not surprising that high protein diets lead to weight loss, even without intentional restriction of calories, portions, fat, or carbs.

In one older study of 19 people with overweight, increasing protein intake to 30% of calories caused a massive drop in calorie intake.

In this study, the participants lost an average of 11 pounds over a period of 12 weeks. Keep in mind that they only added protein to their diet — they did not intentionally restrict anything.

Although the results aren't always this dramatic, most studies do show that high protein diets lead to significant weight loss.

A higher protein intake is also associated with less belly fat, the harmful fat that can build up around your organs and cause disease.

All that being said, losing weight is not the most important factor — keeping it off in the long term is what really counts.

Many people can go on "a diet" and lose weight, but most of them end up gaining the weight back.

Interestingly, a higher protein intake can also help prevent weight gain.

So protein can not only help you lose weight but also help you keep it off in the long term.

C7 WATER INTAKE

Drinking water can help burn calories and reduce hunger cravings. Replacing sugary drinks with water can also lower caloric and sugar intake. But there isn't enough evidence that water itself can help you lose weight.

Does drinking water make you burn calories?

Water consumption is associated with increased sympathetic activity. Your body's sympathetic system activates things like heart rate and metabolism.

Therefore, drinking water may help increase your metabolic rate and how much energy (or calories) you burn.

In a 2023 study, researchers found that people who drank 200–250 milliliters (mL) or 6.8–8.5 ounces (oz) of warm water after each meal lost more weight and registered a lower BMI than the control group who didn't.

In an older study, participants were given water, saline solution, or sucrose to drink. They were then measured for these drinks' impact on their resting energy expenditure or how many calories they burned at rest.

Room temperature water had no effect, while cooled water showed a small increase of 23 calories burned daily. That said, the sucrose drink showed a much more significant increase in energy expenditure.

This raises doubts about the effectiveness of water by itself for managing obesity. More research should focus specifically on the effect of hot versus cold fluids on energy expenditure.

How much water should I drink a day to lose weight?

Many health authorities recommend drinking eight 8-oz glasses of water (about 2 L) per day.

However, a 2017 study actually found no concrete association between drinking this specific amount of water daily and weight loss in adolescents who were overweight or had obesity.

In addition, water requirements actually depend entirely on the individual. For example, people who sweat a lot or exercise regularly may need more water than those who are not as active. Older people and nursing parents also need to monitor their water intake more closely.

Keep in mind that you also get water from many foods and beverages, such as coffee, tea, meat, fish, milk, and especially fruits and vegetables.

As a good rule of thumb, you should always drink water when you're thirsty and drink enough to quench your thirst.

If you find you have dry skin, dark urine, or feel unusually tired, you may be mildly dehydrated. Drinking more water may help fix this.

Here's how much fluids you should typically drink in a day in different measurements:

- Liters: 2.2 L for females and 3 L for males
- Ounces: 74 oz for females and 101 oz for males
- Glasses (8 oz): 9 cups for females and 13 cups for males

However, this is just a general guideline. Some people may need less, while others may need a lot more. For specific information about your water intake, you can talk with a healthcare professional.

How much weight will I lose on a water fast for a few days?

A 2021 study examining 45 people without obesity or who were not overweight found that drinking only water for 5 days resulted in a loss of nearly 5 kg of weight, or about 11 lb.

That said, without medical supervision, water fasts are neither safe nor recommended by healthcare professionals. They can lead to life threatening complications such as low sodium and brain swelling.

In addition, any weight lost during this time is likely to be water weight. Eating a balanced diet and staying physically active is a more sustainable and safe way to lose weight long term.

Takeaway

Water can be a helpful part of a weight loss journey. It's 100% calorie-free, may help you burn more calories, and may even suppress your appetite if consumed before meals.

The benefits are even greater when you replace sugary beverages with water. It can be a simple way to reduce sugar and calorie intake.

However, there is not enough evidence that drinking more water can directly lead to weight loss. If you need to lose a significant amount of weight, it will require a weight loss plan that involves more health-promoting actions in addition to drinking more water.

C8 POSTURE

As a Certified Posture Specialist, study the positive effects of biomechanically correct posture and how it affects the way the body feels. Neck pain, back pain and knee pain are all reduced with proper alignment building exercises. My life's work is teaching clients to improve their poor posture from sitting all day long by stretching their anterior muscles, and strengthening their posterior muscles.

Adding posture building exercises to your daily life can add muscle mass, which in turn can assist with weight loss, but research has now shown that holding powerful posture positions, can influence your hormones to make you a fat burning machine.

The scientific research in this arena all point to "holding" these positions for lengths of time. Here is a 7 minute daily workout routine of 7 different exercises. All of these exercises are designed to open the body into powerful postures, and each one is held for one minute .

Also included in this 7 minute routine, are exercises or stretches (both are included) that open up the posterior muscles that need work as a result of sitting all day long, and stretching the anterior muscles that end up tight from rounding forward. For detailed descriptions of exactly how to do each exercise and picture demonstrations, visit here.

Chest Stretch on a Roller- one of the surefire, best feeling exercises around! This position opens the chest, stretches the super tight pectorals, and literally opens the heart to the universe. Most people need to do this stretch daily from a biomechanics perspective (their pectorals are tight). In keeping with the powerful posture hormone boosting theory, this position opens your body up easily and completely. Try a large stability ball or a pillow to elevate the body so the arms fall lower than the torso for the ultimate stretch.

Basic Back Extension– a safer and easier to do correctly version of the Yoga cobra. The basic back extension exercise involves opening the chest and strengthening the middle back muscles. Different from the cobra, it places less stress on the lumbar spine, which is probably not ready for extreme extension if you haven't done posture exercise in a while. Lift to the back extension position, and hold this position for 1 minute.

Pelvic Curl– this is a common exercise seen in many core exercise programs., In this instance, holding the position at the top will maximize the chest expansion and hip extension element of this movement. The glutes will fire to bring strength to the posterior chain, and working these larger leg muscles also contributes to testosterone production. Lift to the top of the bridge like position, and hold for 1 minute.

Tabletop Chest Opener– arguably the most difficult exercise of this series. This one may take time to build up to 1 minute. It's an extreme chest opening and works the posterior muscles heavily. When done properly, this is a mind blowing effective way to feel powerful in the chest opening stance.

Deadlift with Raised Arms– this may not look like a deadlift since you're not handling heavy weights in front of you, but the hip hinging element of the bend works the hamstrings, glutes and lower back the same way a weighted deadlift would work. The added element of the raised arms creates extra load on the back muscles, and an opening-up of the upper body simultaneously. Hold this position and pull your abs in, while feeling your whole back wake up.

Wall Stand– this is a common posture strengthening exercise that is far more difficult to do than it seems. Standing forward from the wall 4 to 6 inches maximizes the chances of success, and the higher the arms, the more difficult the hold. The goal is to get the head, upper back, mid back, glutes, and back of the whole arms against the wall for the whole minute.

Doorway Hanging Chest Stretch- we finish with an amazing feel good stretch that you can do anytime, anywhere. Learn forward, open up, and embrace the feeling of power in this finishing posture defining pose. It would prevent people from doing it wrong, and likely prevent any injury.

This routine takes 7 minutes and highlights 7 exercises which place your body in 7 powerful positions to increase the hormone regulating, muscle building, and body lengthening power that exercise can contribute to your body changing goals.

C9 YOGA – AASANS

Everyone in this modern era is aware of the relevance of yoga. Yoga is that holistic package that targets total cleansing of your body- mentally, physically and spiritually as well. We cannot deny how rejuvenated and full of energy we feel if we start our day with yoga. Not only this, some yoga asanas for weight loss are so effective but some yoga asanas will also help you reduce weight and get that fit body that you always dream of. Yes, it is possible with some efforts and determination. So, now we will know those 10 yoga asanas that will help in losing weight if you practice them regularly.

These yoga asanas will help you gain more flexibility, improved metabolism, build up your core and stamina. With many twists, bends and inversions, you open up your inactive or rather rusted muscles which speed up your weight loss.

Top 10 Yoga asanas for weight loss

Here are some prominent yoga asanas, known for speeding up the weight loss process.

Bow pose (Dhanurasana):

This is a very effective asana for weight loss. It works on the whole body by improving digestion, curing dyspepsia (obesity), gastrointestinal problems, gives flexibility, strengthens back muscles, cures constipation and improves blood circulation. How wonderful it is to reap these many benefits from a simple bow pose!

Sun salutation (Surya Namaskar):

Sun salutation is a combination of some twelve asanas that are linked and synchronized together in such a way that it leads to total stretching and healing of the body. This pose will give you strength, build up your back as it combines deep breathing abs flowing movement together as a yoga warm-up sequence. It is really good to do at least 12 rounds of Surya Namaskar daily. Morning is the ideal time to perform this. You can increase these rounds as soon as you feel comfortable increasing them. This pose if performed properly can help you trim your waist, stimulate your digestive system, boost metabolism and tone up your arms.

Bridge pose (Setu Bandha Sarvangasana):

To perform this, lie down on your back and stretch your hands sideways. Now fold your knees, spread them out and raise your body up from your pelvis area. Now hold your ankle parts with your hand and take support. This pose works really nicely on your hips, stomach and thighs. It helps you in gently massaging

your thyroid gland when your chin touches your chest. Hence, it leads to the production of the metabolism-regulating hormone.

Boat pose (Naukasana):

This yoga pose is a seated pose that helps to reduce belly fat, improves digestion, improves blood circulation, strengthens abdominal muscles, regulates the function of lungs, pancreas and liver. It can be simply performed. You need to lie down on your back and go into a V-shaped position that looks like a boat. Now, hold that position for 10 seconds and gradually increase the time. You will feel that your stomach muscles are twisting but remember, that is when your stubborn belly fat is killing itself inch by inch. Minimal pain, no gain!

Upward plank (Purvottanasana):

This pose will seem to be a bit difficult in the beginning. But you will see its benefits soon after practicing it regularly. It's just an upward position of the plank. Sit with your legs stretched and hands behind your hips pointing your feet. Now start rising slowly. Hold the position up to ten seconds and increase time slowly. Perform 10-15 or more sets daily. This pose strengthens your triceps, back, legs and wrists, stretch your shoulders, chest, front ankles.

Triangular pose (Trikonasana):

This pose helps you reduce fat deposits in the belly and helps with digestion by its twisting motion. You can engage the muscles of legs and arms to build more muscles and burn more fat.

The warrior pose (Veera bhadrasana):

To perform this pose, you need to stand straight with your legs wide apart at least 3-4 feet. Spread both arms bending your right knee a little. Now stretch both hands towards the ceiling and tilt backward much as your back allows while keeping your legs apart. This pose helps in strengthening your lungs and back muscles. It also works on your thighs, belly and hips region of toning up the mass in that region.

Plank pose (Chaturangadandasana):

This pose is a difficult one but works very well to have a workout effect on your wrists, arms, lower back, abs. It helps in your standing posture giving you a strong and toned up build. It helps in cutting belly fat and forming abs if performed regularly with increased time of holding the plank. The plank pose mainly targets your upper body, shoulders and core fat burning and toning. To do a plank, you need to plant your hands directly under the shoulder, like that of a push-up position and mount your pelvic area parallel to the floor. This is one of the best calorie-burning yoga asanas.

Shoulder stand (Sarvangasana):

This pose has many benefits. It increases your strength, improves digestion, boosts metabolism aiding weight loss and also balances thyroid levels. It helps with your sleep disorders, strengthens shoulder muscles, tones up your buttocks, abdominal muscles and legs. To practice this pose, you have to lie down on your back. And raise your hips stretching your legs upward towards the ceiling. You can support your waist with your wrists or can simply lay hands on the floor straight and stretched with the palms side over the ground.

Cobra pose (Bhujangasana):

This pose strengthens your entire shoulder area and upper back, provides more flexibility to the lower back. It helps in burning unwanted stomach fat by stretching abdominal muscles. It helps in burning extra fat on thighs, hips and lower abdominal areas as well. Lie down on your stomach and raise your head and trunk with your palms on the floor. Now bend your arms at the elbows and make an arch and look upward slowly. Don’t rush. You will feel the pressure on your stomach. Extend your toes fully and push them onto the ground to properly experience the pose. Hold this asana for 5 seconds. This pose also helps with regulating the menstrual cycle in women.

Take Away

So these are some yoga poses for weight loss that will help you to get in shape. But, remember that yoga is only one aspect among many if you are looking for a weight loss journey. You have to follow a balanced diet and some exercising too for quick and desired results. Early morning time is the best to practice yoga. It will relieve you from stress and heaviness that you might feel all day due to multitasking and fast life. Starting your day with yoga will make you feel more flexible and agile than otherwise and in no time it will become a quintessential part of your daily life.

C10 SLEEP

Sleep More, Weigh Less

It's true: Being short on sleep can really affect your weight. While you weren't sleeping, your body cooked up a perfect recipe for weight gain.

When you're short on sleep, it's easy to lean on a large latte to get moving. You might be tempted to skip exercise (too tired), get takeout for dinner, and then turn in late because you're uncomfortably full.

If this cascade of events happens a few times each year, no problem. Trouble is, more than a third of Americans aren't getting enough sleep on a regular basis. Yet experts agree that getting enough shut-eye is as important to health, well-being, and your weight as are diet and exercise.

Sleep and Metabolism

Sleep is like nutrition for the brain. Most people need between 7 and 9 hours each night.

Too little sleep triggers a cortisol spike. This stress hormone signals your body to conserve energy to fuel your waking hours.

Researchers found that when dieters cut back on sleep over a 14-day period, the amount of weight they lost from fat dropped by 55%, even though their calories stayed equal. They felt hungrier and less satisfied after meals, and their energy was zapped.

Sleep deprivation makes you "metabolically groggy.Within just 4 days of insufficient ZZZs, your body's ability to process insulin -- a hormone needed to change sugar, starches, and other food into energy -- goes awry. Insulin sensitivity, the researchers found, dropped by more than 30%.

Here's why that's bad: When your body doesn't respond properly to insulin, your body has trouble processing fats from your bloodstream, so it ends up storing them as fat.

So it's not so much that if you sleep, you'll lose weight, but that too little sleep hampers your metabolism and contributes to weight gain.

C11 CHRONIC STRESS

Stress and Weight Loss: What's the Connection?

High cortisol levels caused by stress can affect the digestive and nervous systems, leading to weight loss. If you unintentionally lose more than 5% of your body weight, it is recommended that you see a doctor.

For many people, stress can have a direct impact on their weight. Whether it causes weight loss or weight gain can vary from person to person — and even situation to situation.

In some cases, stress may lead to missed meals and unhealthy food choices. For others, stress may cause them to completely lose the desire to eat. Oftentimes, this change is only temporary. Your weight may return to normal once the stressor has passed.

Why weight loss happens

When you're stressed, you may engage in different behaviors than usual, like working through lunch or staying up late to meet an important deadline. These disruptions can worsen your body's internal reaction to stress.

Hyperstimulation can affect your body's ability to process and absorb nutrients

When you're stressed, your body processes food differently. Stress affects your vagus nerve, which affects how your body digests, absorbs, and metabolizes food. This disruption may result in unwanted inflammation.

Nervous movement burns calories

Some people use physical activity to manage stress. Although an exercise-fueled endorphin rush can reduce stress, engaging in more physical activity than normal could result in unexpected weight loss.

Sometimes, stress triggers unconscious movement, like foot tapping or finger clicking. These tics may help your body process your feelings, but they also burn calories.

Sleep disruption affects cortisol production

Stress can make it difficult to fall asleep and stay asleep. It can also affect the quality of the sleep you get, leading you to feel sluggish and fatigued. These disruptions can affect cortisol production, which can affect your metabolism. Your eating habits may also be impacted.

Signs your weight loss is connected to stress

Stress can cause more than just unexpected weight loss. Other symptoms of stress include:

- headaches
- indigestion
- aches and pains
- tense muscles
- mood changes
- fatigue
- difficulty falling or staying asleep
- difficulty with short-term memory
- increased heart rate
- decreased sex drive

When is weight loss a cause for concern?

Although dropping a pound or two typically isn't cause for concern, unexpected or undesired weight loss takes a toll on your body.

See a doctor or other healthcare professional if you've lost five percent or more of your overall body weight in any 6- to 12-month period.

You should also see a doctor if you:

- are losing weight without trying
- have chronic headaches
- have chest pain
- feel persistently "on edge"
- find yourself using alcohol or drugs as a way to cope

Your doctor can determine whether your symptoms are related to stress or due to another underlying condition. Whatever the cause, your provider can work with you to develop healthy coping strategies and prescribe medication if needed.

The bottom line

You may be able to work through minimal stress-related weight loss at home, but you should see a healthcare professional if you've lost more than 5 percent of your overall body weight in a short span of time.

Your doctor can help determine why stress is having such a significant impact on your weight and create a management plan suited to your needs. This may mean working with a nutritionist to develop a meal plan and speaking with a therapist about your day-to-day stressors.

C12 HYPOTHYROIDISM

WHAT IS THE THYROID GLAND?

The thyroid gland is a butterfly-shaped gland located in the lower front of the neck. The job of the thyroid gland is to make thyroid hormones. Thyroid hormones are released into the blood and carried to every tissue in the body. Thyroid hormones help the body use energy, stay warm and keep the brain, heart, muscles, and other organs working. In children, thyroid hormone is necessary for normal growth.

WHAT IS THE RELATIONSHIP BETWEEN THYROID AND WEIGHT?

There is a complicated relationship between thyroid disease, body weight and metabolism. Metabolism is the process of turning food into energy. It can be measured by how much energy the body uses over time. At rest, this is known as the Basal Metabolic Rate (BMR). BMR affects energy balance, which is the relationship between calories eaten and calories used by the body. When the BMR is high, more calories are burned, which could lead to weight loss. When the BMR is low, less calories are burned, which could lead to weight gain.

In thyroid disorders, high thyroid hormone levels raise BMR and low levels decrease BMR. However, BMR does not tell the whole story about weight and thyroid. There are many other hormones, proteins, and chemicals that also factor into weight changes.

Since patients with hyperthyroidism may burn more calories than usual, they may have some weight loss. The amount of weight loss depends on how overactive the thyroid is. On the other hand, since hyperthyroidism also raises appetite, some patients may actually gain weight, depending on how much more they eat.

WHAT IS THE RELATIONSHIP BETWEEN HYPOTHYROIDISM AND WEIGHT?

Since patients with hypothyroidism may burn less calories than usual, an underactive thyroid may cause some weight gain. There may be more weight gain with more severe hypothyroidism, however the weight change in hypothyroidism is usually much less dramatic than in hyperthyroidism. Most of the weight gained is actually due to retaining salt and water. For most patients, about 5-10 pounds of weight gain may be related to the thyroid, depending on the severity of the hypothyroidism, but individuals may differ.

HOW DOES TREATMENT OF HYPOTHYROIDISM AFFECT WEIGHT?

Treatment of hypothyroidism returns body weight to what it was before the hypothyroidism started. If the symptoms of hypothyroidism besides weight gain

are improved with treatment, it is unlikely that the weight gain was only due to the thyroid. Once hypothyroidism has been treated and thyroid levels are normal, the ability to gain or lose weight is the same as in patients who do not have thyroid problems.

CAN THYROID HORMONE BE USED TO HELP ME LOSE WEIGHT?

Thyroid hormones have been used for weight loss in the past. However, taking extra thyroid hormone also raises the risk of serious side effects, such as:

- Insomnia
- Palpitations
- Anxiety
- Loss of muscle mass
- Loss of bone mass
- Heart rhythm problems, which can lead to increased risk of stroke

Furthermore, once the excess thyroid hormone is stopped, any weight loss is usually regained.

C13 MASSAGE

Losing weight can be a daunting task — and you're not alone if the thought of extra hours in the gym makes you want to grab a pint of your favorite ice cream and settle onto the couch.

You can make weight loss easier and more fun with self-care techniques like massage.

While massage won't cause you to lose weight, it can help in a number of ways. For example, massage can decrease your muscle pain and increase your flexibility, so you get the most out of your workouts.

Can massage help with weight loss?

Massage alone won't shift the pounds, but scientists have found several ways that it may aid your weight loss efforts.

Improved post-workout recovery

One way massage can assist weight loss is by supporting your recovery after workouts. If you haven't been exercising frequently or are increasing the intensity of your workouts, you may experience soreness or muscle pain after workouts.

Massage can reduce pain and decrease muscle fatigue, helping you stay on track with your exercise plan and goals.

Getting the most out of your workouts (and day)

Massage can also potentially increase your range of motion and flexibility, allowing you to get more out of your workouts.

As an added bonus, massage releases endorphins. This can feel invigorating, improving your mindset and helping you get off the couch or out of bed. You might find yourself moving your body more even if you don't head to the gym.

Types of massage to try

Depending on your goals and comfort levels, there are a variety of different massage types you may be interested in trying. Some types of massage include:

- Swedish massage
- abdominal massage
- hot stone massage
- aromatherapy massage
- deep tissue massage

- reflexology
- lymphatic drainage massage
- abhyanga oil massage
- myofascial release therapy

Limitations to be aware of

It's important to remember that massage by itself won't cause weight loss.

There is also a chance that massage may cause injuries, blood clots, or nerve and muscle pain. Avoid massage if you have:

- signs of infection like a fever
- consumed alcohol
- open wounds
- burns
- bleeding disorders like severe hemophilia

If you are pregnant, not all types of massage are safe options. Always let your massage therapist know if you are pregnant or trying to become pregnant beforehand.

Even if you are not pregnant, let your massage therapist know about any other health conditions you may have and medications you are taking.

Potential benefits of massage

- improved blood circulation
- reduced stress, depression, and anxiety
- increased flexibility and range of motion
- improved digestion
- reduced blood pressure
- reduced in pain
- improved sleep quality

The bottom line

Massage can be used to support your body in losing weight. It offers a variety of potential benefits, from an improved mood to increased flexibility and quicker recovery from workouts.

However, it won't cause you to lose pounds in the same way exercise and dietary changes can.

It's important to talk with your doctor about any significant dietary or exercise changes you may be considering.

They can advise you if massage might support these changes and help you to reach your health and fitness goals.

C14 PRANAYAMA

Like yoga poses, pranayama is a form of ancient yogic breathing with remarkable benefits for the mind and body. These controlled breathing exercises target deep within, helping reduce stress, improve lung function, and even slow down aging. But, what if I told you pranayama can also improve a stubborn metabolism and increase weight loss?

Although pranayama was originally developed to boost the flow and storage of prana (life-force energy), new research is shining a light on how this practice can also speed up our metabolism, and, as a result, help you cut a few unwanted pounds. And, the findings are quite incredible.

If you're curious about how breathing exercises influence your metabolic rate and the best pranayama for metabolism increase, below I'll be exploring everything you need to know about boosting your metabolism and weight loss journey with just your breath.

Best Pranayama for Weight Loss

Kapalbhati Pranayama (Skull Shining Breath)

Kapalabhati, often called Skull Shining Breath, is a cleansing breathing exercise that's part of the six internal cleansing exercises known as Shat Kriyas. This technique involves some forceful exhalations, which not only gives your abdominal organs a good workout but also helps to release any stuck energy and toxins. As a result, it's great for increasing metabolism and helping your digestive system run smoothly.

Benefits:

- Strengthens the abdominal muscles
- Removes stale air from the bottom of the lungs
- Increases lung capacity and tones the lungs
- Improves digestion and function of the pancreas
- Stimulates sympathetic nervous system, which boosts metabolism

Bhastrika Pranayama

Bhastrika Pranayama is a more advanced version of Kapalbhati, with a focus on forceful inhalations and exhalations. Practicing Bhastrika Pranayama for metabolism is effective as it boosts your oxygen intake and activates the sympathetic nervous system, helping you burn more calories. The intensive breaths also activate the abdominal muscles for better overall digestion.

Benefits:

- Tones abdominal muscles
- Improves digestion and function of the pancreas
- Stimulates sympathetic nervous system, which boosts metabolism

Ujjayi Pranayama (Ocean Breath)

Ujjayi means "victorious" or "vibration". In modern yoga, it is often referred to as Ocean Breath because of the gentle, ocean-like sound it creates as air moves in and out of the throat. As this technique encourages deep breathing, it decreases stress which can reduce the risk of excessive weight gain and unhealthy eating habits.

Benefits:

- Increases the solar/fire energy in the body
- Enhances concentration and relieves mental fatigue
- Decreases stress hormone levels which can help improve metabolism

C15 MEDITATION

What is meditation?

Meditation is a practice that helps to connect the mind and body to achieve a sense of calm. People have been meditating for thousands of years as a spiritual practice. Today, many people use meditation to reduce stress and become more aware of their thoughts.

There are many types of meditation. Some are based on the use of specific phrases called mantras. Others focus on breathing or keeping the mind in the present moment.

All of these methods can help you develop a better understanding of yourself, including how your mind and body works.

This increased awareness makes meditation a useful tool for better understanding your eating habits, which could result in weight loss.

What are the benefits of meditation for weight loss?

Meditation won't make you lose weight overnight. But with a little practice, it can potentially have lasting effects on not only your weight, but also your thought patterns.

Sustainable weight loss

Meditation is linked to a variety of benefits. In terms of weight loss, mindfulness meditation seems to be the most helpful. A 2017 review of existing studies found that mindfulness meditation was an effective method for losing weight and changing eating habits.

Mindfulness meditation involves paying close attention to:

- where you are
- what you're doing
- how you're feeling in the present moment

During mindfulness meditation, you'll acknowledge all of these aspects without judgment. Try to treat your actions and thoughts as just those — nothing else. Take stock of what you're feeling and doing, but try not to classify anything as being good or bad. This becomes easier with regular practice.

Practicing mindfulness meditation can lead to long-term benefits, too. Compared to other dieters, those practicing mindfulness are more likely to keep the weight off, according to the 2017 review.

Less guilt and shame

Mindfulness meditation can be particularly helpful in curbing emotional and stress-related eating. By becoming more aware of your thoughts and emotions, you can recognize those times when you eat because you're stressed, rather than hungry.

It's also a good tool to prevent you from falling into the harmful spiral of shame and guilt that some people fall into when trying to change their eating habits. Mindfulness meditation involves recognizing your feelings and behaviors for what they are, without judging yourself.

This encourages you to forgive yourself for making mistakes, such as stress-eating a bag of potato chips. That forgiveness can also prevent you from catastrophizing, which is a fancy term for what happens when you decide to order a pizza since you already "screwed up" by eating a bag of chips.

How can I start meditating for weight loss?

Anyone with a mind and body can practice meditation. There's no need for any special equipment or expensive classes. For many, the hardest part is simply finding the time. Try to start with something reasonable, such as 10 minutes a day or even every other day.

Make sure you have access to a quiet place during these 10 minutes. If you have children, you may want to squeeze it in before they wake up or after they go to bed to minimize distraction. You can even try doing it in the shower.

Once you're in a quiet place, make yourself comfortable. You can sit or lie down in any position that feels easy.

Start by focusing on your breath, watching your chest or stomach as it rises and falls. Feel the air as it moves in and out of your mouth or nose. Listen to the sounds the air makes. Do this for a minute or two, until you start to feel more relaxed.

Next, with your eyes open or closed, follow these steps:

- Take a deep breath in. Hold it for several seconds.
- Slowly exhale and repeat.
- Breathe naturally.
- Observe your breath as it enters your nostrils, raises your chest, or moves your belly, but don't alter it in any way.
- Continue focusing on your breath for 5 to 10 minutes.
- You'll find your mind wandering, which is completely normal. Just acknowledge that your mind has wandered and return your attention to your breath.

- As you start to wrap up, reflect on how easily your mind wandered. Then, acknowledge how easy it was to bring your attention back to your breath.

Try to do this more days of the week than not. Keep in mind that it might not feel very effective the first few times you do it. But with regular practice, it'll get easier and start to feel more natural.

Other mindfulness techniques

Here are a few other tips to help you take a mindfulness-based approach to weight loss:

- **Slow down your meals.** Focus on chewing slowly and recognizing the taste of each bite.
- **Find the right time to eat.** Avoid eating on the go or while multitasking.
- **Learn to recognize hunger and fullness.** If you aren't hungry, don't eat. If you're full, don't keep going. Try to listen to what your body is telling you.
- **Recognize how certain foods make you feel.** Try to pay attention to how you feel after eating certain foods. Which ones make you feel tired? Which ones make you feel energized?
- **Forgive yourself.** You thought that pint of ice cream would make you feel better, but it didn't. That's OK. Learn from it and move on.
- **Make more thoughtful food choices.** Spend more time thinking about what you're going to eat before actually eating.
- **Notice your cravings.** Craving chocolate again? Acknowledging your cravings can help you resist them.

C16 MUSIC FOR WEIGHT LOSS

Music and Weight Loss: What the Research Says

The idea that some good tunes can actually have an impact on your weight loss just may be music to your ears. But it's more than just an idea—it has scientific backing. Several different studies have looked at the way in which music can impact everything, from the effectiveness of an exercise routine to one's overall health. They all seem to point to the same fact—that music matters. Find out how music can help you reach your weight loss goals on your Nutrisystem journey.

Music Helps You Burn More Calories

A lot of the research focuses on how music impacts one's workout routine—and it's quite encouraging. For instance, research published in the Journal of Exercise Physiology Online, demonstrates that people exercising with fast tempo music had a higher heart rate and increased respiratory rate—all of which adds up to more calories burned.

Good Tunes Makes Exercise Enjoyable

In addition to burning more calories, different research, out of Brunel University London, has revealed that music makes exercise more enjoyable. The results, which were published in the journal Psychology of Sport and Exercise, found that listening to music led to a 28 percent increase in enjoyment (compared to no auditory). This is important as music could inspire you to work out longer, leading to even more calories burned.

Listening to Music Helps You Stick with Your Goals

Similarly, music can also help you stick to a program for the long-term. A study, from Fairleigh Dickinson University, found that listening to music while exercising helped participants adhere more closely to their workout regimen and lose more weight. According to MedicineNet, the 2005 study followed a group of overweight and obese women during a 24-week period of exercise. Half of the women listened to music of their choice. While all participants lost weight, weight loss was higher for the music listeners.

Moving to Music Helps Increase Your Happiness

If you're someone who loves music (as most people do), then this is probably quite obvious to you—music makes you happy. Specifically, dancing to music has been shown to be a great way to boost your mood. A study, published in the International Journal of Neuroscience, showed that 12 weeks of dance sessions raised serotonin (the neurotransmitter contributing to feelings of happiness) and contributed to enhanced mood.

Tips for Incorporating Music Into your Routine

There's no question that music can have a positive impact on your workout routine and overall health. It is a great way to potentially increase results with your weight loss plan. We've rounded up a few important takeaways so that can use music to your benefit.

Choose music that you like. Enhance your workout and get motivated by listening to your favorite tunes. Choose music that personally motivates you and remember that it is very subjective. While you might be inspired by "rock," your friend might be inspired by "hip hop." Headphones are certainly a wonderful creation!

Create a playlist that fits your routine. Use music to boost your workout by coordinating it with the activity you're doing. According to The Sport Journal, research displays that synchronizing your tunes with "repetitive exercise is associated with increased levels of work output." For instance, a slow and steady beat might be more helpful for a weight-lifting session, while something with a faster tempo would be ideal for an aerobic workout. You might even consider which songs motivate you the most to tackle that hill on your run and which help you run at a faster pace on the straightaways.

Do your musical homework in advance. As you gear up to incorporate more music into your routine, take some time to create playlists and maybe even venture outside of your typical line-up. Find songs that really inspire you and update your playlist accordingly. With some advanced preparation, you'll be ready to make the most out of your workout!

C17 DANCING FOR WEIGHT LOSS

Dancing Can Help You Lose Weight and Develop Lean Muscle

- A scientific review has found that dancing is a beneficial weight loss aid.
- Dancing was found to improve body mass, BMI, waist circumference, fat percentage, and fat mass.
- Experts say dancing burns calories and helps the development of lean muscle mass.
- To start, you should find a dance style you enjoy, start slow, and be sure to perform a warm-up and cool-down routine.

Dancing doesn't just feel good. New research shows it can help you lose weight, too.

The systemic review published in the scientific journal, 10 studies on the effects of dance interventions on body composition in people living with overweight or obesity.

Compared to average lifestyles, dance was found to contribute to meaningful improvements in body mass, BMI, waist circumference, fat percentage, and fat mass.

The researchers concluded that "For its high efficiency and greater sense of enjoyment, dance can be a beneficial exercise intervention for fat loss."

How to start dancing for weight loss

So, if you're on a mission to lose weight and you've decided dance is the exercise for you, how should you get started?

The first and most important thing to do is choose a dance style that actually makes you want to dance.

"While different dance styles offer distinct benefits, the emphasis should be on personal enjoyment and adherence".

"High-energy styles like Clubbercise may enhance cardiovascular fitness, while more controlled forms like ballet can contribute to muscle toning. But the best way to start is to discover what brings you joy and creates sustained engagement."

Once you've found a style you love, starting with shorter sessions and building up to longer ones. You'll want to incorporate a warm-up and cool-down session each time, and it's important to stay hydrated, too.

"Be mindful of not overexerting yourself too, as it can cause injury". "It's a good idea to listen to what your body is telling you throughout."

"Make sure you allow your body adequate time to recover by including rest days between dance sessions, as this will reduce your risk of burnout and injuries".

How intensely do you need to dance to promote weight loss?

The fitness coach says dance involves a combination of cardiovascular exercise, strength training, and flexibility, making it a source of exercise that anyone can enjoy.

The dynamic and rhythmical movements involved in dance cause the heart rate to become elevated, promoting calorie expenditure in the body and aiding in fat loss. "What's more, the continuous movement during dance sessions enhances your cardiovascular fitness, promoting calorie burning even after the dance session finishes."

For dance to be used as an effective tool for weight loss, you should aim for a moderate to high intensity level during your sessions.

"This typically involves getting the heart rate up, breaking a sweat, and feeling moderately out of breath, but not so out of breath that you can't hold a conversation".

A good way to gauge intensity during exercise is by using the talk test.

"If you can talk comfortably but not sing during the dance routine, you're likely dancing at moderate intensity and working hard enough to promote weight loss".

Takeaway

Losing weight can be challenging, but finding fun and effective ways to shed pounds, like dancing, can make the process more enjoyable and sustainable.

While dancing – like all exercise – needs to be combined with a calorie deficit to cause weight loss, it can be a more enjoyable way to drop unwanted pounds.

C18 GENETICS

Understanding Genetic Testing for Weight Loss

Genetic testing for weight loss involves analyzing specific genes that influence your body's response to food, exercise, and lifestyle habits. These genes can affect how you metabolize nutrients, your appetite control, fat storage, and even your risk for obesity. By studying your genetic markers, experts can develop a customized plan that targets your individual needs.

Key Benefits of Genetic Testing for Weight Management:

- **Personalized nutrition:** Learn how your body responds to specific foods and tailor your diet accordingly.
- **Exercise optimization:** Understand which types of physical activity are most beneficial for your genetic profile.
- **Long-term success:** Increase the likelihood of sustainable weight loss by creating a plan that works with your body's biology, not against it.

Overcoming Plateaus with DNA-Based Weight Management

One of the most frustrating aspects of weight loss is hitting a plateau, where progress stalls despite your best efforts. Understanding your genetic makeup can help overcome these challenges by revealing metabolic factors or food sensitivities that might be hindering your progress.

For instance, some people have genes that make them more prone to weight regain after losing it. By knowing this ahead of time, you can take preventive steps to avoid setbacks. Genetic testing can also identify hormonal imbalances or gut health issues that might be affecting your weight management efforts.

Common Genes Involved in Weight Management

Several genes have been linked to weight management, influencing everything from how you metabolize food to your appetite levels and risk of obesity. Here are a few key genes often analyzed in DNA tests for weight loss:

- **FTO Gene:** Linked to appetite regulation and obesity risk.
- **MC4R Gene:** Affects hunger and satiety signals in the brain.
- **PPARG Gene:** Involved in fat metabolism and storage.
- **FABP2 Gene:** Affects how efficiently you absorb dietary fats.
- **LEP Gene:** Regulates the production of leptin, the hormone that controls hunger.

By understanding how these genes function, you can create a diet and exercise plan that works in harmony with your body's natural processes.

The Future of Weight Management: Precision Medicine

As genetic testing becomes more accessible and affordable, it's likely that DNA-based diets and exercise plans will become the future of weight management. Precision medicine, which tailors healthcare to individual genetic profiles, is already transforming how doctors treat conditions like cancer and heart disease. The same approach is now being applied to weight management and overall health.

By embracing personalized nutrition and fitness plans based on your DNA, you can take a proactive approach to managing your weight, improving your health, and achieving long-term success.

Conclusion

In a world filled with fad diets and conflicting health advice, genetic testing offers a science-backed solution for personalized weight management. By understanding your genetic predispositions, you can create a highly effective and sustainable diet and exercise plan that aligns with your body's needs.

If you're tired of trial-and-error dieting and want to explore a personalized approach to weight loss, consider genetic testing as the first step in your journey to better health.

C19 PRESCRIPTION WEIGHT LOSS MEDICATIONS – A BRIEF

Who can take weight-loss drugs?

Your health care provider may suggest a weight-loss drug for you in some cases. These include if you haven't been able to lose weight through diet and exercise and your:

- Body mass index (BMI) is greater than 30. This means you're living with a condition that involves having too much body fat, called obesity.
- BMI is greater than 27. You also have a serious medical problem linked to obesity, such as diabetes or high blood pressure.

Before choosing a medicine for you, your health care provider thinks about your history and health challenges. Then your provider talks with you about the pros and cons of prescription weight-loss drugs.

These drugs aren't for everyone. For example, you shouldn't take prescription weight-loss drugs if you're trying to get pregnant, are pregnant or are breastfeeding.

How well do weight-loss drugs work?

Prescription weight-loss drugs that you can use for more than 12 weeks, called long-term use, lead to major weight loss compared with an inactive treatment that doesn't use medicine, called a placebo. The combination of weight-loss medicine and lifestyle changes leads to greater weight loss than do lifestyle changes alone.

Taking these drugs for a year can mean a loss of total body weight of 3% to 12% more than that lost with lifestyle changes alone. That may not seem like a lot. But losing 5% to 10% of your total weight and keeping it off can have important health benefits. For example, it can lower blood pressure, blood sugar levels and levels of fats in the blood called triglycerides.

What you should know about weight-loss drugs

Mild side effects, such as nausea, constipation and diarrhea, are common. They may lessen over time. Rarely, serious side effects can happen. That's why it's important to ask your health care provider about all treatment choices. And ask about the possible benefits and risks of each drug.

Weight-loss drugs can be expensive and aren't always paid for by insurance. Ask your insurance company about your coverage.

Many people gain back some of the weight they lost when they stop taking weight-loss drugs. But practicing healthy lifestyle habits may help limit weight gain.

How long do I take a weight-loss drug?

How long you take a weight-loss drug depends on whether the drug helps you lose weight. If you've lost enough weight to improve your health and you haven't had serious side effects, your health care provider may suggest that you take the drug long term.

If you haven't lost at least 5% of your body weight after taking the full dose of a drug for 3 to 6 months, your health care provider will probably change your treatment. They may switch you to a different weight-loss drug.

What drugs are approved for weight loss?

Six weight-loss drugs have been approved by the Food and Drug Administration (FDA) for long-term use:

- Bupropion-naltrexone (Contrave)
- Liraglutide (Saxenda)
- Orlistat (Xenical, Alli)
- Phentermine-topiramate (Qsymia)
- Semaglutide (Wegovy)
- Setmelanotide (Imcivree)

Most prescription weight-loss drugs work by making you feel less hungry or fuller. Some do both. The exception is orlistat. It affects the way your body absorbs fat.

Bupropion-naltrexone

Bupropion-naltrexone is a combination drug. Naltrexone is used to treat alcohol and opioid addiction. Bupropion is a drug to treat depression, called an antidepressant, and a drug to help people stop smoking, called a quit-smoking aid. Like all antidepressants, bupropion carries a warning about suicide risk. Bupropion-naltrexone can raise blood pressure. So your provider will need to check your blood pressure regularly at the start of treatment. Common side effects include nausea, headache and constipation.

Liraglutide

Liraglutide also is used to manage diabetes. It's given as a daily shot. Nausea is a common complaint. Vomiting may limit its use.

Orlistat

You also can get orlistat in a reduced-strength form without a prescription. Orlistat can cause side effects such as passing gas and having loose stools. You need to follow a low-fat diet when taking this medicine. In rare cases, people

have had serious liver injury with orlistat. But researchers haven't found that the drug causes liver injuries.

Phentermine-topiramate

Phentermine-topiramate is a combination of a weight-loss drug called phentermine and an anticonvulsant called topiramate. Phentermine has the potential to be misused because it acts like a stimulant drug called an amphetamine. Other possible side effects include an increase in heart rate and blood pressure, insomnia, constipation, and nervousness. Topiramate increases the risk of birth defects.

Phentermine by itself (Adipex-P, Lomaira) also is used for weight loss. It's one of four similar weight-loss drugs approved for use for less than 12 weeks, called short-term use. The other drugs in this group aren't often prescribed.

Semaglutide

Semaglutide also is used to help control type 2 diabetes. You take it as a weekly shot to manage obesity.

It can cause side effects such as:

- Nausea and vomiting
- Diarrhea
- Belly pain
- Headache
- Tiredness
- Setmelanotide

The FDA has approved setmelanotide only for people age 6 and older who have obesity due to one of these rare inherited conditions:

- Pro-opiomelanocortin deficiency
- Proprotein subtilisin-kexin type 1 deficiency
- Leptin receptor deficiency

To take the drug, you'll need to have test results that show you have one of these conditions. Setmelanotide doesn't treat any of the gene problems that cause these conditions. But it can help you lose weight. It can lessen your appetite and make you feel fuller. And it may help you burn calories while your body is at rest.

You take setmelanotide as a daily shot. It can cause side effects such as:

- Swollen or irritated skin where the needle went in
- Patches of darker skin
- Nausea
- Diarrhea

- Belly pain
- Unwanted sexual reactions
- Depression
- Suicidal thoughts

Never give setmelanotide to a child under 6 years old. It can cause newborns and babies to have dangerous reactions.

The bottom line

Weight-loss drugs aren't an easy answer to weight loss. But they may help you make the lifestyle changes that you need to practice to lose weight and improve your health.

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Your Medical Guide to Overcoming Obesity

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Fat Loss Made Easy

Your Medical Guide to Overcoming Obesity

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This book, "Fat Loss Made Easy: Your Medical Guide to Overcoming Obesity," offers a comprehensive and multi-faceted approach to achieving sustainable fat loss and overcoming obesity. It goes beyond simple weight loss by distinguishing it from fat loss, providing essential information on BMI, different types of obesity, and their causes.

The book then delves into the physiology of weight loss, guiding readers on diet and nutrition with insights on processed foods, vegetarian vs. non-vegetarian options, the psychology of overeating, and the role of supplements. Crucially, it provides a diverse range of practical strategies for fat loss, covering everything from exercise and dietary adjustments like intermittent fasting and protein intake, to lifestyle factors such as sleep, stress management, and even alternative approaches like yoga, meditation, and music, making it a holistic guide for anyone looking to improve their health and body composition.

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