Lesson 11 Fasting to Weight Loss

Objectives

- X Understand the basics of weight loss
- X Learn the basics of fasting
- X Know about each of the types of fasts
- **X** Evaluate how effective fasting is in weight loss
- X Make your decision on fasting



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The Basics of Weight Loss



Overview

- X Weight loss can be achieved through a variety of methods.
- X In this unit, you will learn about lifestyle, exercise, and diet (including fasting).



How Many Calories per Pound?

- The general perception is that per pound of weight loss you must **always** remove 3500 calories from your diet. As an example, if you cut 500 calories out of your diet every day, then you would lose one pound in a week.
- However, this view is incorrect because it does not apply at all times during weight loss. Also, if this rule did apply at all times, outrageous and unrealistic weight loss would occur.
- As an example, take a 5'8" man weighing 200 pounds. If he cuts 200 calories from his diet each day, then in 17.5 days he would lose 1 pound, meaning in 10 years he would weigh 0 pounds. In reality, he would reach an equilibrium; at that point, he wouldn't lose further weight.

The Correct Rule to Use

- From the previous slide, you should know that the 3500 calories per pound rule is inaccurate. So what is the correct rule?
- Every permanent 10-calorie drop in your diet will lead you to lose 1 pound. This means if you cut 500 calories out of your diet each day, you will lose fifty pounds and not one-seventh.
- Note that after you lose 50 pounds, you will not lose any more weight. This is because the weight loss will plateau.

Why Weight Loss Plateaus

- X Weight loss plateaus due to your metabolism and behavior on a diet.
- When you are on a diet and cut calories out, you will, obviously, drop your caloric intake. However, over time your appetite will take over and you will increase your calorie intake.
- X Thus, you will end up with nearly as much calorie intake as you had at the start of the diet. Basically, you have gone to the point at which you won't lose more.

The Basics of Fasting



The Basics of Fasting

- When one is fasting, he/she is not consuming any food or beverage (excepting water) for a set period of time. This can be a few hours or several days.
- X Often, water is the only beverage consumed in a fast. Food should not be consumed during the fasting period.
- × Food includes fruits, vegetables, meat, dairy, etc.

Why People Fast

- People often fast for weight loss. This is probably the most common reason why people fast.
- People also fast for religious purposes. For example, people often fast during the period of Lent, Navaratri, or Ramadan.
- Sometimes, people fast for civil disobedience. Gandhi is famous for doing this many times in his fight for Indian independence.

Types of Fasts Covered

- × Juice Fast
- × Water Fast
- × 5:2 Fast
- Fasting-Mimicking Diet
- × Alternate-Day Fasting
- × 16/8 Fast
- × Eat-Stop-Eat
- × Warrior Diet
- × Spontaneous Meal Skipping
- × Time-Restricted Eating
- × One Meal a Day Fast

Each Fast in Detail



The Basics of Juice Fasts

- X A juice fast is a fast involving the consumption of only fruits and vegetables that have been blended into a liquid form called juice.
- X No solids are consumed for a period ranging from one day to two weeks.
- Fruits and vegetables are mixed with water and are consumed 3 to 6 times a day.

NOTE: For more information on juice, go to Lesson 8.

Cost-Benefit Analysis of Juice Fasts

Costs	Benefits
More Sugar in your Diet	Better Absorbability of Nutrients
Lack and Loss of Fiber	More Variety in Foods Consumed
Can become Expensive	Best when Starting on a New Diet Regimen

Potential for Infection due to Raw Food Consumption

Cleanses Bodily Toxins



The Basics of Water Fasts

- Water fasts permit nothing except water to be consumed. It is extremely popular nowadays for weight loss.
- Water fasts generally last for 24 to 72 hours. For longer duration, it is recommended that you conduct the fast under medical supervision.
- It has been shown that water fasts lower the risk of chronic diseases such as heart disease, cancer, and diabetes. However, there are health risks involved with water fasts - which you will view in the cost-benefit analysis.
- Water fasts promote autophagy, a process that is good for your body. You will learn more about this in the next slide.

About Autophagy

- Autophagy is a process in which your body breaks down old cells to create new cells. In the process of autophagy, your body acts like a forest fire.
- It can also be defined as "...consumption of the body's own tissue as a metabolic process occurring in starvation and certain diseases." (Levy, 2018)
- X This seems frightening, but your body must do this in order to renew its cells.
- X Autophagy prevents aging and reduces the effects of stress on the body. However, research on autophagy is just beginning. Thus, we don't know **all** of the effects.

Cost-Benefit Analysis of Water Fasts

Costs		
Loss of the Wrong Type of Weight	Promoti	
Loss and Lack of Fiber	Lower Blood I Hy	

Low Blood Pressure when Standing (Orthostasis)

. .

Worsening of Medical Conditions

Benefits

Promotion of Autophagy

Lower Blood Pressure for those with Hypertension

Lower Insulin and Leptin Sensitivity

Lower Risk and/or of Chronic Diseases



Partial/Intermittent Fasts

- X There are many types of partial fasts.
- The basic meaning of a partial fast is a fast that excludes a specific food or beverage - for example, meat and/or rice.
- The most popular partial fasts are the 16/8, 5:2, Eat-Stop-Eat, Alternate-Day Intermittent, Warrior, and Spontaneous Meal Skipping fasts. You will learn more about each one.

Cost-Benefit Analysis of Partial Fasts

Costs	Benefits
May Cause Orthorexia	Positive Changes in Cell, Hormone, and Gene Function
Sleep Disruption	Weight Loss
Anxiety, Stress, or Depression	Reduction of Stress and Inflammation
Hair Loss	Prevention of Chronic Diseases

Basics of the 5:2 Diet

- X A 5:2 diet is a type of partial/intermittent fast and is quite popular.
- In the 5:2 diet, you eat normally for 5 days and fast on 2 days. This can make fasting more convenient for most people - they can fast on weekends and eat normally on weekdays.
- X There is no shown negative impact on mood from a study on 5:2 diets. Thus, it can be a good fast to begin with.

Cost-Benefit Analysis of the 5:2 Fast

Costs

More Pronounced Feelings of Hunger

Difficult to Maintain

Quality of Life Issues

Not a Full Fast

Benefits

Flexibility in Fasting Day Choice

Normal Eating for 5 Days

Reduction in Body Fat

Not Difficult to Follow



Basics of the 16/8 Diet

- In the 16/8 diet, one fasts for 14-16 hours and consumes food within a time frame of 10 hours and 8 hours respectively.
- Women are generally advised to fast for roughly 14-15 hours only. It has been shown that women can fast for one hour less than men and still garner the benefits of a 16/8 fast.
- Consumption of water and tea is permitted on this fast. This may help to reduce hunger levels.

Cost-Benefit Analysis of 16/8 Fasts

Costs

May cause Overeating in those with Eating Disorders

Can put you in Ketosis

Not an Immediate Fix

Benefits

Speeds Weight Loss

Reduces Inflammation

Improves Blood Pressure and Sleep

Reduction of Chronic Disease Risk



Basics of the Eat-Stop-Eat Diet

- X In the Eat-Stop-Eat fast, one fasts for one or two days per week.
- For example, if you do not consume anything at dinnertime on one day and eat nothing until dinnertime the next day, you have conducted a 24-hour fast.
- **×** Beverages are permitted during the fast, but no food is allowed.
- Ensure that you eat normally when allowed to. Otherwise, the benefits of fasting will not be reaped.

Cost-Benefit Analysis

Costs

May Not Fit Your Lifestyle

Best Done Privately

May Cause Cravings

Benefits

May Improve Cardiovascular Health*

Reduced Inflammation

Cellular Health

Permits Artificially Flavored Beverages

***NOTE:** More clinical research is necessary to determine if this is caused by fasting or weight loss.

Basics of Alternate-Day Fasting

- X In an alternate-day fast, one fasts on alternate days.
- For example, if you ate on Monday, you would fast on Tuesday, Thursday, and Saturday. You would consume food normally on Wednesday and Friday.
- Significant reductions in body fat have been shown in studies of alternate-day fasting. However, in a longer trial, people on alternate-day fasts had lost about the same amount of weight as the calorie cutters.

Cost-Benefit Analysis

Costs

Harder to Commit to

Worse at Protecting Body Mass

Higher Risk of Hypoglycemic Issues for Type 2 Diabetics

Benefits

Breaks from Constant Hunger

Significant Reductions in Body Fat

Similar Weight Loss to Calorie Cutting

Better Blood Pressure



Basics of Warrior Fasting

- In the Warrior diet, one fasts for 20 hours overnight and during daytime. It is based on a theory of what original humans did.
- X There are no limits on which foods can be consumed on the diet. Ideally, one should consume fruits, vegetables, and other whole foods as much as possible.
- Calories can be consumed in the fasting period, but should be consumed minimally.

Cost-Benefit Analysis

Costs

Hard to Follow

Can Lead to Overeating

Not a Good Fast for Many People

May Lead to Nutritional Deficiencies

Benefits

Weight Loss

Improvement of Blood Sugar

Reduction of Inflammation

Reduction of Cognitive Disease Risk



Basics of Spontaneous Meal Skipping

- This is the last partial/intermittent fast that you will learn about in this lesson. It is not a diet; rather, it is a routine that you can change.
- Senerally, you should skip 1 or 2 meals in a day for fasting purposes. You can also skip meals at other times if mealtime is too inconvenient.
- X The following cost-benefit analysis will evaluate the pros and cons of skipping meals.

Cost-Benefit Analysis

Costs

Uneven Distribution of Calories

Not Giving Energy for Body to Function Properly

Low Blood Sugar

May Lead to Binge Eating

Benefits

Promotes Weight Loss

Lower Bodily Resistance to Insulin

Improvement in Cardiovascular Health

Protection from Alzheimer's



Basics of Time-Restricted Eating

- Time-restricted eating is fasting for more than 12 hours but less than 24 hours. Generally, calorie intake is restricted to a small window.
- X These windows range from 3-4 hours to 10-12 hours.
- The benefits and the cons can depend based on what window you eat at. The following cost-benefit analysis will include reasons from all windows.

Cost-Benefit Analysis

Costs

Potential Elevations in Blood Pressure

Potential Elevations in Cholesterol

No Significant Advantage over Calorie Limiting

Benefits

Less Eating

Weight Loss

Heart Health

Lower Blood Sugar Levels

Basics of One Meal a Day Diet

- The one meal a day diet requires that you eat one large meal at one set time in the day. No large meals are permitted at any other time.
- If you are hungry, you may eat a small bit of food to satiate yourself during the fasting time.

Cost-Benefit Analysis

Costs

Worsens High Blood Pressure

Worsens Blood Sugar Levels

Weakens the Immune System

Benefits

Boost in Weight Loss

Boost in Energy

Improved Control when Consuming Food



Fast for Weight Loss?



Is Fasting Safe?

- **X** Fasting is safe, but there are precautions to keep in mind.
- Breaking a fast is probably the most dangerous part. Thus, prepare to break a fast several days in advance.
- Note, however, that under a medical professional's oversight, it is unlikely that problems should occur. For long fasts, ensure that such a person is watching your fast.

Potential Hazards of Fasting

- X Nutrient Deficiencies
- X Diuresis (causes heart problems)
- X Muscle Wasting & Disintegration of Heart Muscle

Is Fasting Effective?

- We now know that fasting is safe. Fasting is effective at reduction of and/or prevention of many diseases and problems. (View the cost-benefit analyses in the previous section.)
- Fasting can cause large amounts of weight loss, but sometimes it doesn't. The average test subject apparently gained weight when fasting in one study.
- Fasting can work, but must be only a starter to a healthier diet. A healthy diet is best for long-term prevention of disease.
- However, after two weeks fasting will not accelerate weight loss. This is because your body at this point needs energy.

Conclusion

Fasting is safe to conduct and is partially effective, but must be a precursor to healthy diet.

Make Your Decision



Taking Up a Fast

- If you have not, review over the cost-benefit analyses for each of the fasts that you learned about.
- Decide whether or not to take up a fast based on the benefits it provides. However, also ensure that you have tactics in mind to mitigate the negative effects of each of the fasts.
- X Also, do not overdo a fast. Fasting for a small period of time is acceptable, but after that it should be overseen by a doctor or your medical professional.





Review of Objectives

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- X Learn the basics of fasting
- X Know about each of the types of fasts
- **X** Evaluate how effective fasting is in weight loss
- X Make your decision on fasting

Thank you for visiting this presentation!!! I wish you all the best in your journey to optimal health. Ensure that you check the resources page to find out where I got the information, as well as to go to those sources to learn more.