Nutrition for Healthy Living 120

GC0 3 - Health Trends and Issues

Aug 7-11:40 AM

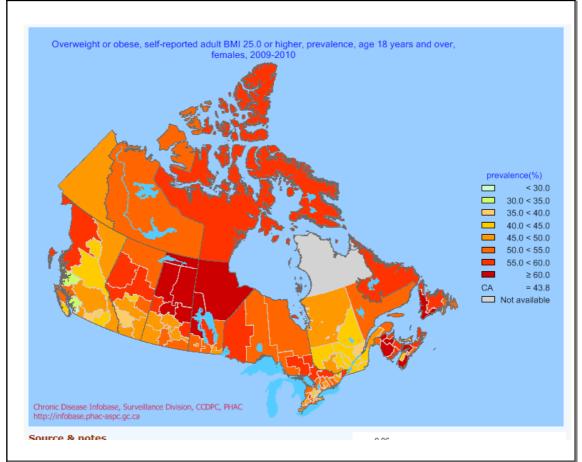
Chronic Conditions

A <u>chronic condition</u> is one that is long-lasting or recurrent.

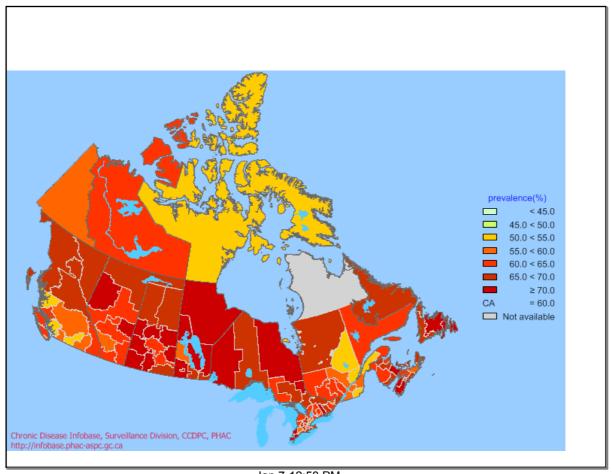
Center for Chronic Disease Prevention and Control http://www.cdc.gov/

Chronic diseases are the most common and most costly health problems facing Canadians, however, they are among the most preventable.

<u>Risk Factors</u>: tobacco, alcohol, blood pressure, physical inactivity, cholesterol, obesity, unhealthy diet, raised blood glucose.



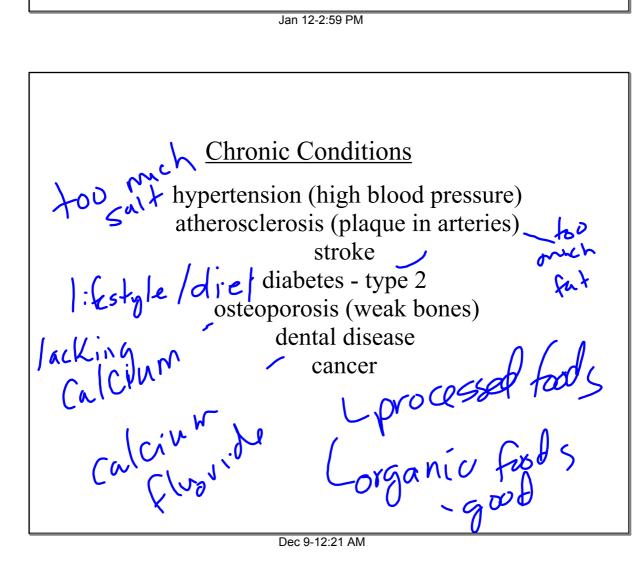
Jan 7-12:58 PM



Jan 7-12:58 PM

http://www.businessinsider.com/world-health-organization-obesity-maps-2015-1

Jan 12-2:59 PM



Height-Weight Charts Page 221

You can estimate healthy weight using a standard height-weight table.

Height-Weight Table

These tables are not precise and not designed for people under the age of 19. They do not take into account body composition or individual health risks.

P 221 textbook

http://www.shemrock.com/blogs/average-height-and-weight-chart-for-indian-boys-and-girls/

http://www.calisthenicexercise.com/height-weight-chart/

Dec 9-12:57 AM

Determining Healthy Weight

Chapter 12 - Page 219

It is important to maintain a healthy body weight. It is a weight at which your body fat is in an appropriate proportion to your lean tissue.

- 1. You can determine whether your weight is healthy by using mathematical calculations based on your weight and height.
- 2. You can take measurements of your body fat.



Weight groups can be defined by body mass index.

Body mass index (BMI) is a calculation of body weight and height.

BMI =
$$\frac{\text{weight in pounds}}{\text{(height in inches)}^2} \times 705$$

 $BMI = \underline{weight in kilograms}$ (height in meters)²

60+9 = 69

Example: Calculate the BMI of someone who is 5 feet 9 inches (1.75 m) tall and weighs 145 pounds (65.25 kg).

BMI =
$$\frac{\text{weight in pounds}}{\text{(height in inches)}^2} \times 705$$

BMI = $\frac{\text{weight in k}}{\text{(height in k)}} \times 705$

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 $BMI = \underline{weight in kilograms}$ (height in meters)²

$$BMI = \frac{65.25}{(1.75)^2}$$

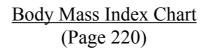
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For adults, healthy weight is defined as a BMI of 18.5 to 24.9.

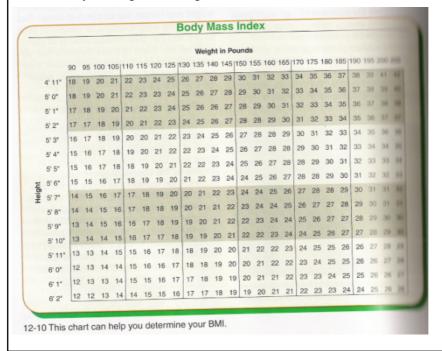
An adult with a BMI of 25 to 29.9 is said to be overweight.

If an adult's BMI is 30 or more, the person is identified as obese.

Any adult with a BMI below 18.5 is considered <u>underweight</u>.



You can find your BMI in a Body Mass Index chart if you know your height and weight.



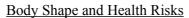
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BMI is not an appropriate weight evaluation tool for everyone. It does not take into account where on the body a person's fat lies or whether the body mass is muscle or fat.

Chart Page 221

Also, definitions of weight categories based on BMI are not clear-cut for children and adolescents who are still growing. Recommended BMI cutoffs to identify children and adolescents who are overweight vary according to age and sex.

http://www.medicalnewstoday.com/articles/265215.php



Your health is not only affected by how much body fat you have, but where most of the fat is located on your body. Fat around your waist is more dangerous than fat around your thighs and hips.





"Apple" Shaped Person

weight accumulation in the stomach and abdomen

"Pear" Shaped Person"

lower body fat stores in the hips, thighs and buttocks





The excess fat stored by "Pears" is just below the surface. It is not necessarily a risk to health. "Apples" have a higher risk for heart disease, stroke, diabetes, high blood pressure and gall bladder disease.

Dec 12-12:49 AM

Waist to Hip Ratio

The waist to hip ratio is a measure of trunk fatness.

WHR = <u>waist circumference</u> hip circumference

=34.5/42.5

0.81

Men = 0.90

Women = 0.80

http://www.bmi-calculator.net/waist-to-hip-ratio-calculator/waist-to-hip-ratio-chart.php

Body Fat Measuring Devices

Analyzing the percentage of fat in your body is another way to judge your weight status.

Men -> 15 - 18% (over 25% is excessive)

Women \rightarrow 20 - 25% (over 30% is excessive)

Dec 9-1:04 AM

Determing Body Fat

One way to measure body fat is to use a <u>skinfold test</u>. A <u>caliper is</u> used to measure the thickness of a fold of skin. An estimate is made about how much of the thickness is due to <u>subcutaneous fat</u> - the fat that lies beneath the skin and accounts for about half the fat in the body.

Skinfold measurements are often taken on the thigh, upper arm, abdomen and/or back.





<u>Pinch test</u> - grasp the skin on the back of your upper arm halfway between your shoulder and elbow. Pinch this fold of skin between your thumb and forefinger. A distance between your thumb and forefinger of more than one inch (2.5 cm) may indicate a high percentage of body fat.

Dec 9-1:14 AM

Another method for measuring body fat i<u>selectrical impedance</u>. This procedure measures the body's resistance to low-energy electrical current. Lean tissue conducts electrical energy, whereas fat does not. The measure of resistance is converted to a percentage of body fat.

https://www.youtube.com/watch?v=ctrW_C7XZU0

https://www.youtube.com/watch?v=pJD7BsP6Als

Energy Balance

Energy is the ability to do work. It can't be created or destroyed, but it can change from one form to another.

Energy balance is the key to weight management.

energy in = energy out calories in = calorie out

If these are balanced, weight does not change.

Dec 15-8:48 PM

Energy Input

One side of the energy equation looks at the food you consume.

carbohydrates

fats

proteins

<u>Calorie density</u> refers to the concentration of energy in a food.

foods high in fats - calorie dense

foods high in H₂O - lack calorie density

Energy Output

The other side of the energy equation looks at the calories you burn throughout the day.

You need energy for basal metabolism, physical activity and the thermic effect.

- 1. basal metabolism keeps you alive while you are at rest
 - the amount of energy required to support the operation of all internal body systems except digestion

It includes the energy your body uses every day to breathe, circulate blood, maintain nerve activity, secreting hormones, maintaining body temperature and making new cells.

The <u>basal metabolic rate</u> (BMR) is the rate at which the body uses energy for basal metabolism.

http://www.bmi-calculator.net/bmr-calculator/bmr-formula.php

*women require 0.4 cal/pound of body weight per hour to support basal metabolism *men require 0.5 cal/pound of body weight per hour to support basal metabolism

- 2. <u>physical activity</u> you need energy to move muscle and the extra work of breathing harder and pumping more blood during exercise
 - body size and amount of muscle movement varies energy output
- 3. <u>thermic effect of food</u> the energy required to extract the energy from food
 - the energy required to complete the processes of digestion, absorption and metabolism

Dec 15-9:07 PM

English

BMR Formula

Women: BMR = 655 + (4.35 x weight in pounds) + (4.7 x height in inches) - (4.7 x age in years)Men: BMR = 66 + (6.23 x weight in pounds) + (12.7 x height in inches) - (6.8 x age in year)

example: 655+(4.35*165)+(4.7*66)-(4.7*39)=1502

Metric

BMR Formula

Women: BMR = 655 + (9.6 x weight in kilos) + (1.8 x height in cm) - (4.7 x age in years)

Men: BMR = 66 + (13.7 x weight in kilos) + (5 x height in cm) - (6.8 x age in years)

Daily calorie needs moderate activity 1502*1.55 = 2328 calorie

http://www.bmi-calculator.net/bmr-calculator/harris-benedict-equation/

Current Trends

- 1. holistic approach
- 2. trans fatty acids
- 3. vegetarian diets
- 4. carbohydrate loading
- 5. glycemic effect •
- 6. fad diets

Dec 15-9:24 PM

Sport Nutrition Chapter 16

The typical athlete burns many calories through exercise.

Chart - How Many Calories Do Athletes Burn? (Page 275)

An Athlete's Dietary Needs

Athletes need to choose foods high in carbohydrates, moderate in protein and low in fat. Carbohydrates are the preferred source of energy.

Diets need to include a variety of foods rich in vitamins and minerals because they are important for the conversion of carbohydrates, fats and protein to energy.

Link - Steelers

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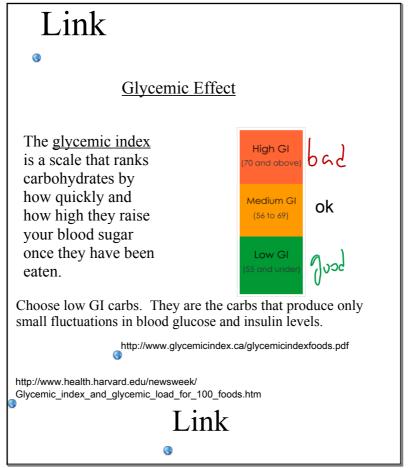
Carbohydrate Loading

<u>Carbohydrate loading</u> is a technique used to trick the muscles into storing more glycogen for extra energy.

It involves eating a diet moderate in carbohydrates for a few days. Then during the three days before a sports event, an athlete consumes a high-carbohydrate diet and decreases training intensity.

When you eat a much larger percentage of carbohydrates than protein or fat, extra glucose is stored as glycogen in the liver and muscles. During exercise, the glycogen is converted to energy.

Some problems can occur: water rentention, digestion distress, muscle stiffness and sluggishness. Athlete's with chronic diabetes are especially likely to have problems.



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Fad diets

Atkins - high protein- Ideal Protein

21 day plan

Plexus

Cabbage soup diet

Jan 13-3:15 PM

Fad Diets

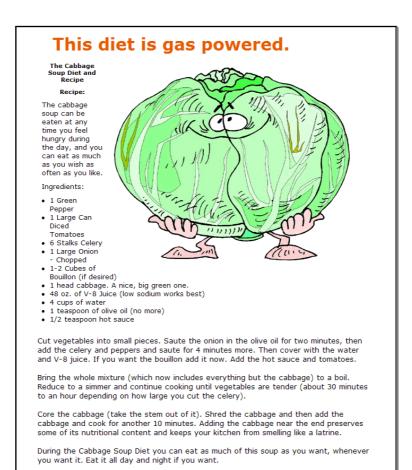
A <u>fad diet</u> is an eating plan that is popular for a short time because it promises rapid weight loss.

Other Definitions of a Fad Diet

Some nutritionists define a fad diet by a series of questions rather than assessing popularity:

- · Recommendations that promise a quick fix
- Dire warnings of dangers from a single product or regimen
- · Claims that sound too good to be true
- · Simplistic conclusions drawn from a complex study
- Recommendations based on a single study
- Dramatic statements that are refuted by reputable scientific organizations
- Lists of "good" and "bad" foods
- Recommendations made to help sell a product
- Recommendations based on studies published without review by other researchers
- Recommendations from studies that ignore differences among individuals or groups
- · Eliminated one or more of the five food groups

Dec 16-12:13 AM



Day One:

Fruit: Eat all of the fruit you want (EXCEPT BANANAS). Eat only your soup and the fruit for the first day. For drinks- unsweetened teas, cranberry juice and water.

Day Two

Vegetables: Eat until you are stuffed will all fresh, raw or cooked vegetables of your choice. Try to eat leafy green vegetables and stay away from dry beans, peas and corn. Eat all the vegetables you want along with your soup. At dinner, reward yourself with a big baked potato with butter. Do not eat fruit today.

Day Three:

Mix Days One and Two: Eat all the soup, fruits (but not bananas) and vegetables you want. NO BAKED POTATO.

Day Four

Bananas and Skim Milk: Eat as many as eight bananas and drink as many glasses of skim milk as you would like on this day, along with your soup. This day is supposed to lessen your desire for sweets.

Day Five:

Beef And Tomatos: Ten to twenty ounces of beef and up to six fresh tomtoes. Drink at least 6 to 8 glasses of water this day to wash the uric acid from your body. Eat your soup at least once this day. You may eat broiled or baked chicken instead of beef (but absolutely no skin-on chicken). If you prefer, you can substitute broiled fish for the beef one one of the beef days (but not both).

Day Six

Beef and Vegetables. Eat to your heart's content of beef and vegetables this day. You can even have 2 or 3 steaks if you like, with leafy green vegetables. NO BAKED POTATO. Eat your soup at least once.

Day Seven

Brown rice, unsweetened fruit juices and vegetables: Again STUFF,STUFF,STUFF yourself. Be sure to eat your soup at least once this day.

That's it. Good luck. We would love to see this diet work for you, help you lose weight, and give you a more positive self image.

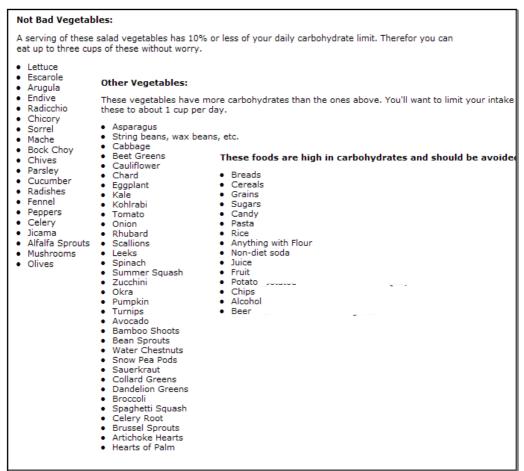
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Atkins Says - "Carbohydrates



Meat	Fish	Fowl	Shellfish	Eggs	Cheese
Beef	Tuna	Chicken	Oysters	Scrambled	Aged & Fresh
Pork	Salmon	Turkey	Mussels	Fried	Cow & Goat
Lamb	Sole	Duck	Clams	Poached	Cream Cheese
Bacon	Trout	Goose	Squid	Soft Boiled	Cottage Cheese
Veal	Flounder	Cornish Hen	Shrimp	Hard Boiled	Swiss
Ham	Sardines	Quail	Lobster	Deviled	Cheddar
Venison	Herring	Pheasant	Crab		

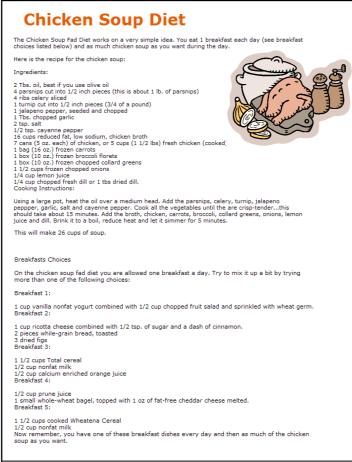
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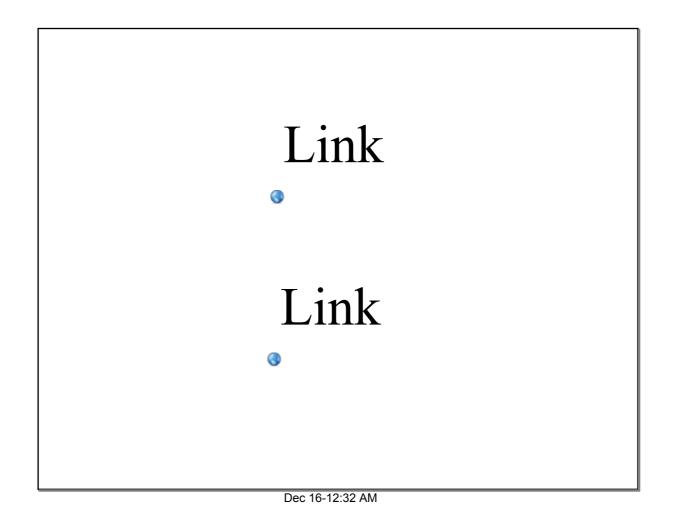
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Dec 17-12:19 AM



Dec 17-12:23 AM



Dangers of Rapid Weight-Loss Plans

Weight-loss diets that provide fewer than 1200 calories per day are sometimes referred to as <u>crash diets</u>. These diets lack essential nutrients. It takes a minimum of about 1300 calories to provide all the recommended servings from the Food Guide.

Fasting means to refrain from consuming most or all sources of calories. Within 24 hours of fasting, the body's carbohydrate stores can be depleted. After that, the body will start to break down lean tissue including muscles and organs to produce energy. The body will also convert fatty acids into ketone bodies which can lead to ketosis.

Dec 17-12:33 AM

Ineffectiveness of Rapid Weight-Loss Plans

Crash diets seldom have long-lasting positive weight-loss results.

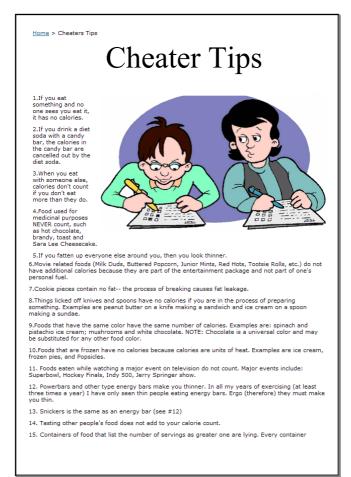
Dramatic initial results are often due to fluid loss. When the diet ends water weight is quickly regained.

Fad diets give people no control over their food choices - you are usually told what and how much to eat. The diets are not designed to help people maintain new weights. Old eating habits return quickly once the diet ends.

Crash dieting can lead to <u>weight cycling</u> - a lifelong pattern of weight gain and loss. It is sometimes called the <u>yo-yo diet</u> <u>syndrome</u>.

Research indicates that increases and decreases in weight from year to year may be harmful to health.

For weight loss to be effective, it should be a process that gradually removes unwanted weight (1-2 lbs/week) while the participant learns ways to eat healthy for life.



Dec 16-12:25 AM

Self- Esteem

Self-esteem is how you feel about yourself.

Body Image

Body image is a person's inner perception of their outward appearance.

https://www.pinterest.com/pin/483574078721387285/

Media Images The Era The Look of the Day for Women A large body is a sign of health and fertility. Corsets narrow the waist and enhance the bust. 1800's Actress Lillian Russell at 200 lbs. or 91 kg. is the most 1890's celebrated beauty of the time. Paris designer creates slim sheath dresses, declares that breasts are "out". 1910's Era of the flat-chested, slim-hipped flapper. First dieting craze 1920's of the 20th Century begins. 1950's & Voluptuous full figured shapes of Marilyn Monroe and Jayne 1960's Mansfield are popular. British model Twiggy (5'6 or 168 cm. and 91 lbs. or 41 kg.) arrives on the scene – and the diet industry explodes. 1967 1970's & Models gradually become taller, thinner and begin to show toned muscle definition. Breasts make a fashion come-back. 1980's Waif-like figure of Kate Moss presents a wasted "heroin chic" look and a pre-teen body. Early 1990's Tall, very thin models with no visible body fat and muscles highly toned by hours of working out. Large breasts remain in style – but are rare in this body type without the help of breast implants. Late 1990's The average North American woman is 5'4 or 163 cm and 140 lbs. or 64 kg. Models in the 1970's weighed 8% less than the average woman. By the 1990's models weighted 23% less. Real bodies come in all shapes and sizes. 2000 and beyond ..Set your own trend!!!

Dec 18-12:01 AM



Dec 17-11:24 PM

Link

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Dove

3

Dec 17-10:23 PM

Eating Disorders

(Chapter 14)

An <u>eating disorder</u> is an abnormal eating pattern that endangers physical and mental health.

Eating disorders are most common among teenage and young adult women, but people of both genders and other age groups can develop these disorders too.

Probable Causes of Eating Disorders

Social Influences

* Media emphasis on thinness *Changing role expectations for women - career, success and family

Psychological Influences

*A need for control

*Poor self-esteem

*Need for acceptance and approval

*Unrealistic self-expectations

*Inability to cope

*Family stresses

Genetic Influences

*Hormonal imbalance
*Depression
*Other medical causes

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Characteristics of People With Eating Disorders

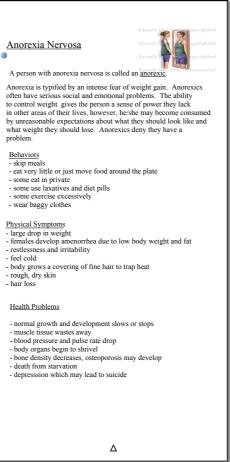
- * Fear of becoming overweight
- * Poor body image
- * Low sense of self worth
- * Preoccupation with food
- * Distorted feelings about hunger and fullness
- * Emotionally withdrawn from friends
- * High achievement orientation
- * High stress levels
- * Secretive eating behaviors

Nervosa

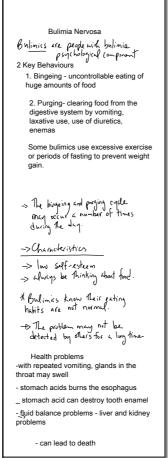
"Nervosa" indicates that an illness that has a psychological origin.

Handout

Dec 19-1:03 AM



Dec 18-12:07 AM



Dec 19-1:07 AM

Binge Eating Disorder

- -> involves eating very large amounts of food
- -> bingers rapidly overeat until uncomfortably full
- -> bingers do not engage in follow-up behavior to prevent weight gain
- -> problems with excess weight occur
- -> feelings of guilt
- -> ongoing feelings of frustration and rejection
- -> generally drop out of weight loss programs
- -> without treatment bingeing will begin again and lost weight will be regained

Female Athlete Triad

TRIAD - a group of three things

- 1. Eating disorders among female athletes are common.
- 2. A second problem is amenorrhea linked to a loss of minerals from bone tissue.
- 3. The second problem leads to a third -> osteoporosis.

Sports performance will deteriorate. This may foster feelings of low self-esteem that perpetuates the disordered eating habits.

Jan 4-12:08 AM

Eating Disorders
Read the Warning Signs
(Handout)

Professional Services

medical doctors psychologists registered dietician exercise specialist

All need specialized training in handling eating disorders.

Jan 4-12:06 AM

Treatments

Not on

1. Anorexia Nervosa

- (i) attend to physical health problems the disorder has caused
- (ii) psychological help .
- (iii) nutrition counseling •
- (iv) develop a suitable exercise plan .
- (v) build new controls: verbal skills, stress management techniques ·
- (vi) family support $\boldsymbol{\cdot}$
- * Early treatment is the best chance for improved health. Some people recover fully. Approximately 20% will remain underweight.

2. Bulimia Nervosa

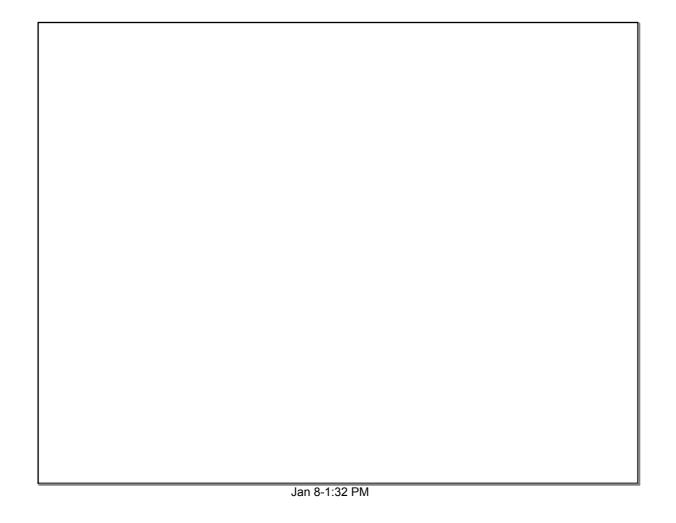
- -> Outpatient treatment is typical unless the case is severe
- -> Antidepressants may be prescribed.
- -> Support groups may be available.
- * With treatment 25% of bulimics stop bingeing and purging. With or without treatment, relapses occur especially during periods of stress.

3. Binge Eating Disorder

- -> Treatment focuses on emotional issues and eating problems.
- -> Weight management techniques are taught.

	Topics - GCO 3				
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Jan 4-2:58 PM



Chronic Disease Clock

Dec 9-12:17 AM