

Health and Wellness: What everyone should know

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Health and Wellness

- Physical Fitness
- Nutrition
- Sleep
- Stress

Physical Fitness

- Fitness Problems
- Obesity
- Healthy Choices
- Physical Activity
- Quiz

Fitness Problems

- Obesity has reached epidemic proportions
- In the last 10 years:
 - Obesity rates increased by over 60% for adults
 - Nationally, 61% of adults overweight or obese

Type II Diabetes

- Most common type of diabetes
- Hyperglycemia or Hypoglycemia
- What the body does:
 - Body doesn't produce enough insulin
 - Cells ignore insulin
- Insulin is necessary for body to use sugar
- Sugar is basic fuel for cells in body
- Insulin take sugars from blood into the cells

Diabetes Symptoms

- Frequent urination
- Excessive thirst
- Extreme hunger
- Unusual weight loss
- Increased fatigue
- Irritability
- Blurry vision
- If you have 1 or more symptoms, you should see your doctor or the health center

Type 2 Diabetes

- Adults

- Increased by 49%

- Young People

- 10 years ago, virtually unknown
 - Today, accounts for almost 50% of new cases

Obesity

- Since 1980, % of overweight children has nearly doubled
- % of overweight adolescents has tripled
- Almost 9 million young Americans or 15% of all children are overweight

Healthy Choices

- Avoiding Risky Behavior
- Behavior Changes
- Physical Activity

Alcohol

- Misuse and abuse continues to be problem
- Supplies calories but few nutrients
- Effects can be devastating:
 - Adverse health consequences
 - Liver Damage, plus others
 - Domestic abuse
 - Drinking and Driving
 - Flunking out of school

Tobacco

Most preventable cause of Death & Disease

{more than 440,000 deaths (1995-1999)}

- Smoking can cause:
 - Chronic lung disease
 - Coronary heart disease
 - Stroke
- Cancer of:
 - Lung
 - Larynx
 - Esophagus
 - Mouth
 - Bladder
 - Cervix
 - Kidneys
 - Pancreas

Second Hand Smoke

- Results Annually for Non Smokers exposed to second hand smoke:
 - Estimated 3,000 Lung Cancer Deaths
 - >35,000 Coronary Heart Disease Deaths
- Environmental Tobacco smoke contains at least 250 chemicals known to be toxic or cause cancer.

Behavioral Changes

- **Hand washing**

- Fundamental factor in preventing spread of infections

- **Bicycle Helmets**

- Reduces head injury risk by 85%

- **Seat Belt Use**

- Saves over 10,000 lives every year in America

Physical Activity and Weight

- Physical activity helps weight loss when combined with calorie reduction
- Regular activity helps prevent obesity
- Regular activity reduces risks of:
 - Heart disease, helps control cholesterol levels, slows bone loss, lowers risks of certain cancers, and helps reduce anxiety and depression.

Physical Activity

- 40% Adults in America don't participate in any leisure-time physical activity
- Less than 1/3 adults exercise at least 30 minutes most days
- You don't need special skills to be physically active

Physical Activity

- Started slowly, then increased intensity
- Activities can be split into several periods
 - (10 minutes of exercise, 3 times a day)
- Select activities you enjoy
- Incorporate them into daily life
- Get support from friends and family
- Commit to it. Make it a priority

Physical Activities

- Washing a car
- Washing windows
- Gardening
- Raking leaves
- Walking
- Shoveling snow
- Walking stairs
- Weight lifting
- Volleyball
- Touch football
- Basketball
- Bicycling
- Dancing
- Swimming
- Running
- Aerobics

Assessing Your Risk

- Body Mass Index (BMI)
- Waist circumference
- Risk factors for diseases associated with Obesity

Body Mass Index

- Reliable indicator of total body fat
 - which relates to risks of disease and death
- Limits
 - Overestimates body fat athletes
 - Underestimates body fat on older people
 - Not good for pregnant women

Body Mass Index

- Underweight Below 18.5
 - Normal 18.5-24.9
 - Overweight 25.0-29.9
 - Obesity 30.0 and above
-
- BMI calculator can be found at:
 - **www.balancemindbodysoul.com/bmicalc.html**

Waist Circumference

- Risks for developing heart disease and other disease increase:
 - Men's waist circumference over 40 inches
 - Women's circumference over 35 inches

Other Risk Factors

- Besides being overweight, factors to consider:
 - High blood pressure (Hypertension)
 - High LDL-cholesterol (Bad cholesterol)
 - Low HDL-cholesterol (Good cholesterol)
 - Family history of premature heart disease
 - Physical inactivity
 - Cigarette smoking

Assessment

- Need to lose weight:
 - 30+ BMI
 - Overweight BMI + 2 or more risk factors
 - (Even small weight loss will help)
- Need to prevent further weight gain:
 - Overweight BMI, Not high waist measurement, and less than 2 risk factors

Body Fat Analysis

- If you want your body fat analyzed
 - Contact PSU HHPR Dept Exercise Physiology lab at 235-4665
 - Set up appointment for testing
 - Free of charge

Quiz

- What is aerobic exercise?
 - Any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature. It is a type of exercise that overloads the heart and lungs and causes them to work harder than at rest.

Health Benefits of Exercise

- Reduces risk of:
 - Premature death
 - High Blood pressure
 - High Cholesterol
 - Diabetes
 - Reduces body weight
 - Improves psychological well-being
 - Enhanced work, recreation, and sports performance
- Heart Disease
Colon Cancer
Breast Cancer
Reduces anxiety
Depression

Benefits of Aerobic Exercise

- Increased VO_2max
- Reduce body fat and improve weight
- Lower resting blood pressure
- Lower heart rate
- Increase cardiac output
- Increase stroke volume
- Increase blood volume
- Reduced workload on the heart

Benefits of Strength training

- Increased muscular strength
- Increased strength in tendons & ligaments
- Reduces body fat
- Positive change in blood cholesterol
- Improved blood pressure
- Improved strength and balance in older adults

Health and Wellness

- Physical Fitness
- Nutrition
- Sleep
- Stress

Nutrition Quiz

1. Larger portions tend to make us eat more.

True. We've grown used to eating portions way bigger than we need. Large portions, known as portion distortion is one of many reasons given for our increasing incidents of obesity.

Nutrition Quiz

2. The Body's fuel comes from Protein, Fat, and Carbohydrates?

– **True.** All 3 nutrients provide calories which is what your body uses for energy.

Nutrition Quiz

3. An average bakery bagel is 2 servings of grain foods.

False. Bagels have “exploded”. The average bagel is now about 5 ounces and equal to about 5 servings of grain food.

Nutrition Quiz

4. When you are young, you can pretty much eat whatever you want.

False. Good nutrition and good health habits should start early. What you eat now can have some impact on your long term health.

Nutrition Quiz

5. Eating breakfast can help control late night cravings.

True. Research suggests that breakfast eaters tend to weigh less and have better balance to their day. College students should try to eat real food instead of “junk” if they are up late.

Understanding Nutrients

- **Carbohydrates**

- Small units of sugars linked together
- All provide 4 calories per gram

- 2 Types

- Simple (less sugars linked together)
 - Tastes sweet
- Complex (more sugars linked together)
 - Starches found in bread, pasta, potatoes, cereals

Proteins

- Made up of building blocks or amino acids
- 11 amino acids body can produce
- 9 amino acids body can't produce
- All provide 4 calories per gram

Fats

- Dietary fat is part of healthy diet
- Saturated and Unsaturated
- All provide 9 calories per gram

Vitamins and Minerals

- Small
- Powerful nutrients
- Best obtained through food
- Do not provide calories for energy

Energy Balance

- Maintain weight: calories = energy output
- Lose weight: use more energy than take in
- Gain weight: More calories than you use
 - Difference:
 - 1 12oz soda = 30 min of brisk walking most days or
about 150 calories of energy
 - 150 Calories of energy = 5 lbs in 6 months

Energy Balance

- Reducing calorie intake by 150 calories along with moderate exercise could double weight loss to:
 - 10 lbs in 6 months
 - 20 lbs in 1 year

Balancing intake

- 1 Sm chocolate chip cookie (50 calories) = 10 min briskly walking
- Large gourmet cookie vs. sm cookie = 40 min raking leaves
- 1 hr walking (20min/mile) = 1 jelly donut
- Fast food combo meal (double cheese, extra lg fries, 24 oz soft drink = running 2 1/2 hours at 10 min/mile pace

Eating tips

- $\frac{3}{4}$ Plate rule – Make grains, legumes, fruits and vegetables 75% of your meal. Make meat and dairy other 25%.
- Choose most brightly colored fruits & vegetables
- Eat fish or seafood once a week
- Drink more tea
- Chinese food-drain off extra sauce (most fat located here)

Eating Tips

- Avoid drinking meal at coffee shop
 - Typical grande mocha = 400-600 calories
- Be wary of low-fat versions
 - Not always a big bargain
- Always drink lots of water
- Choose pizza wisely
 - Vegetable toppings
 - Less meat and cheese

Eating Tips

- Eat slowly
- Ask for sauces, gravy, and salad dressing on the side
- Use low-calorie or fat free dressings
- Limit alcohol
- If portions large, take some home
- Avoid Jumbo, giant, deluxe, biggie, and super sized items

Fast Food

- America has been called “**Fast Food Nation**”
 - Everyday, 1 in 4 American eat it
- Eating out is “cheapest” option
- Not many nutritious options
 - Too much salt, fat, or sugar
 - Larger than normal portions

Healthy Fast Food

- Grilled chicken
- Grilled fish
- Whole wheat rolls
- Fruit
- Fruit and yogurt
- Baked potato
- Single hamburger
- Low fat deli sandwich on wheat bread or Pita bread
- Wraps on whole wheat
- Fat free milk
- Water
- Salad with dressing on side

Unhealthy choices

- Chicken nuggets
- Croissant breakfast sandwiches
- Fried Fish
- Fried Chicken
- Large or Jumbo size fries
- Onion rings
- Double and triple patty burgers

Comparison

- **Meal #1**

- McDonald's ¼ pounder w/cheese, lg fries, 16 oz soda
 - 1,166 calories
 - 51 g fat
 - 95 mg cholesterol
 - 1,450 mg sodium

- **Meal #2**

- McDonald's hamburger, sm fries, 16 oz diet soda or water
 - 481 calories
 - 19 g fat
 - 30 mg cholesterol
 - 665m mg sodium

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Sleep Facts

- As group, 18 to 24 yr olds suffer more from impaired performance due to lack of sleep
- Young people require between 8 and 10 hours of sleep a night
- Fatigue involved in 1 of 6 fatal road accidents
- Insufficient sleep can cause hormone linked to obesity

More Sleep Facts

- Average adult requires **8-8.5 hrs** sleep
- Average adult obtains **< 7 hrs**
- Falling asleep in **< 5 min** = sleep deprived
- Should take **10-15 minutes** to fall asleep
- REM sleep occurs for about **2 hrs** in bursts
 - Dreaming happens during REM sleep
 - Usually begins about **90 min** after falling asleep

Sleep Patterns

- 2 Main types of sleep patterns
 - REM – Rapid Eye Movement
 - Happens only in short bursts
 - NREM – Non Rapid Eye Movement
 - All other stages of sleep
- **Circadian cycle-** natural sleep cycle of your individual body

Tips to improve sleep

- Avoid stress 2-3 hours before sleeping
- Exercise – finish 30-60 before sleeping
- Stick to a ritual
- Make room dark, cool, and quiet
- Be careful with caffeine drinks
- Quit smoking
- Take a nap if sleep deprived

Changing sleep schedule

- 15% consider themselves morning people
- 20% consider themselves night people
- Remainder are indifferent or mid-range

- Use chronotherapy
 - Shifting sleeping hours by 30-45 min per day
 - Will eventually change sleep habits

Epworth Sleepiness Scale

- How likely are you to fall asleep in the following situations?

- 0=Never dose
- 1=Slight chance
- 2=Moderate chance
- 3=High chance

1. Sitting & Reading
2. Watching TV
3. Sitting inactive in public place (theater)
4. Passenger for hour w/out break
5. Lying down to rest in afternoon
6. Sitting & talking to someone
7. Sitting after lunch-No alcohol
8. In car, stopped a few minutes for traffic

Epworth Scale

- A score <8 =Normal sleep function
- A score 8-10=Mild sleepiness
- A score 11-15=Moderate sleepiness
- A score 16-20=Severe sleepiness
- A score 21-24=Excessive sleepiness

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Stress

- “Wear and tear” our bodies experience as we adjust to our continually changing environment
 - It has physical and emotional effects
 - Can be either positive or negative

Stress

- Positive Influence
 - Can help compel you to action
 - Adds anticipation
 - Adds excitement to life

Stress

- Negative Influences
 - Distrust
 - Rejection
 - Anger
 - Depression
 - Anxiety

Stress

- **Goal:** Not to eliminate stress from your life, but to learn how to manage it and how to use it to your advantage.
 - Find the optimal level of stress which will **MOTIVATE** you, but not **OVERWHELM** you

Optimal Stress for Me

- **No single level of stress is good for everyone**
 - Some people need constant change
 - Some people need stability
(Everyone is different)

Managing Stress

- **Become aware of your stressors and your emotional and physical reactions**
 - Notice your stress (Don't ignore it)
 - Determine what events distress you
 - Determine how your body responds to the stress.

Managing Stress

- **Recognize what you can change**
 - Can you change/avoid/eliminate stressors?
 - Can you reduce their intensity?
 - Can you shorten exposure to stressors?
(Take a break, leave the physical premises)
 - Can you devote time and energy to make changes?
(Goal setting, time management)

Managing Stress

- **Reduce intensity of your emotional reactions to stress**
 - Stress triggered by perception of danger
 - Are you expecting to please everyone?
 - Do you feel you must always prevail?
 - Work on adopting more moderate views
 - Stress is something you can cope with
 - **Not** something that overpowers you

Managing Stress

- **Learn to moderate your physical reactions to stress**
 - Slow, deep breathing will bring HR and breathing back to normal
 - Relaxation techniques can reduce muscle tension
 - Biofeedback
 - Music
 - Yoga
 - Progressive Muscular Relaxation

Managing Stress

- **Build your physical reserves**
 - Exercise cardio fitness 3-4 times week
 - Moderate prolonged exercise best
 - Eat well balanced nutritious meals
 - Maintain ideal weight
 - Avoid nicotine, excessive caffeine
 - Take breaks during work
 - Get enough sleep

Managing Stress

- **Maintain your emotional reserves**
 - Develop some mutually supportive friendships/relationships
 - Pursue realistic goals that are meaningful to you
 - Expect frustrations, failures, and sorrows
 - Be a friend to yourself

Stress

- If stress becomes too overwhelming, contact:
 - Talk to your counselor
 - Talk to a teacher
 - Talk to a friend
 - Talk to someone

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