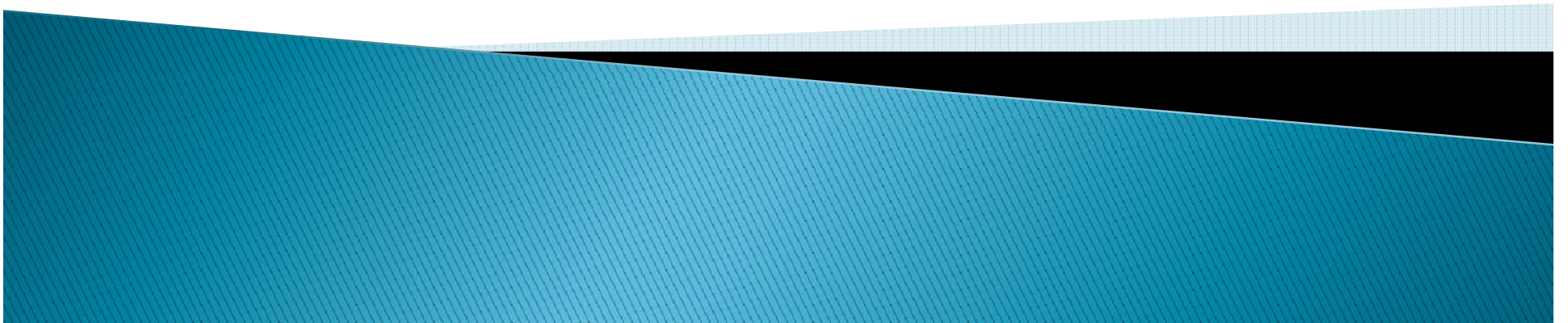




Aerobic Exercise



Aerobic Exercise

- ▶ Any activity that involves rhythmic movements of large muscle groups

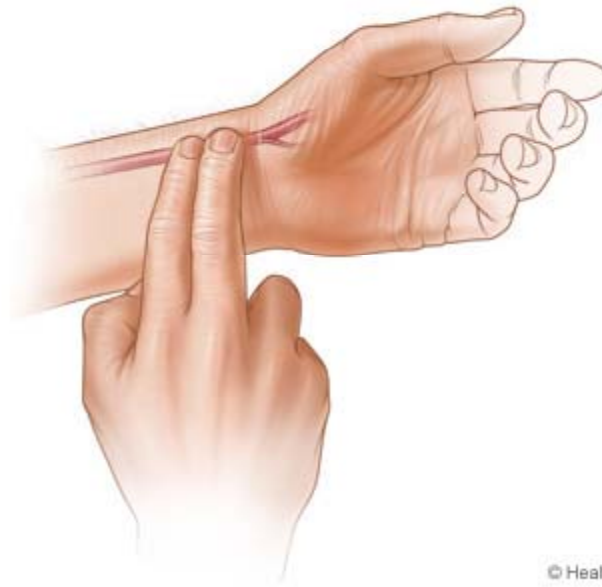


Background

- ▶ Regular aerobic exercise is inversely related to cardiovascular disease, stroke, hypertension, type 2 diabetes, osteoporosis, obesity, colon cancer, breast cancer, anxiety and depression.
- ▶ Physical activity reduces the risk of premature mortality.
- ▶ Physical activity improves mental health and is important for the health of muscles, bones, and joints

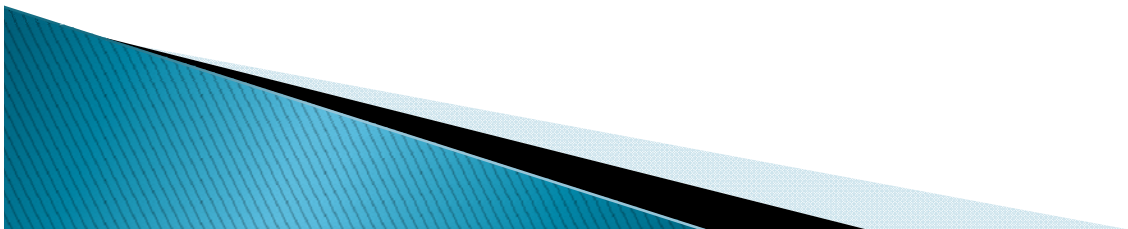
Taking Your Pulse

- ▶ Use your index and middle fingers (not thumb)
- ▶ Count the number of times you feel your heart beat in 30 seconds and multiply it by 2
 - Example: Counted 45 beats in 30 seconds
 - $45 \times 2 = 90$



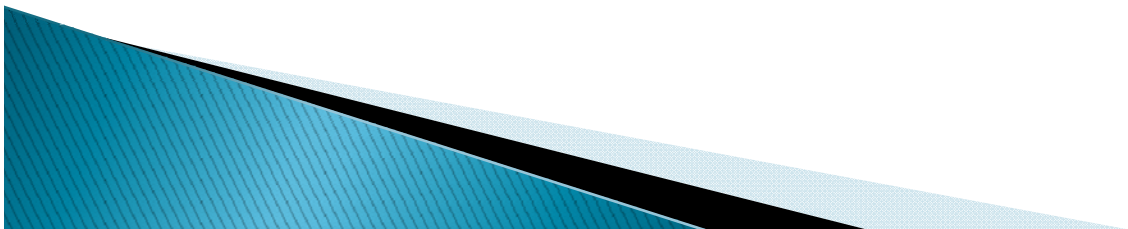
Intensity Calculation

- ▶ Heart Rate Max = $220 - \text{age}$
 - Example: age = 50 yr
 - $220 - 50 = 170$ beats/min
- ▶ Moderate: 65–80% of Heart rate Max
 - $(0.65) \times 170$ beats/min = 111 beats/min
 - $(0.80) \times 170 = 136$ beats/min
 - Target Heart rate range = 111–136 beats/min
- ▶ Vigorous: > 80%
 - Target Heart rate range = > 136 beats/min



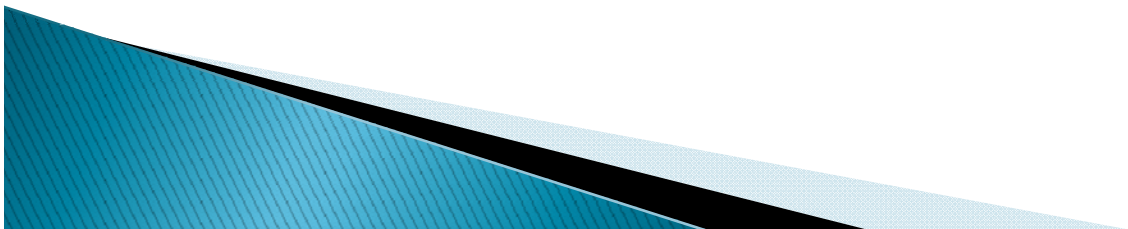
Intensity

- ▶ Moderate intensity
 - Equivalent to a brisk walk and noticeably accelerates the heart rate
 - Can be accumulated toward the 30– minutes minimum by performing bouts each lasting 10 or more minutes.
- ▶ Vigorous intensity
 - Jogging, etc., causing rapid breathing and a substantial increase in heart rate.



Aerobic Exercise

- ▶ All healthy adults aged 18–65 yr
 - Moderate intensity aerobic physical activity
 - 30 minutes
 - 5 days/week
 - = ≥ 150 minutes/week
 - OR
 - Vigorous intensity aerobic activity
 - 20–25 minutes
 - 3 days/week
 - = ≥ 75 minutes/week
 - OR, a combination of the two



Aerobic Exercise components

▶ The FITT principles

○ Frequency

- ACSM: 3–5 days/week
 - Moderate intensity alone: 5 days/week
 - Vigorous intensity alone: 3 days/week
 - Combination: 3–5 days/week

○ Intensity

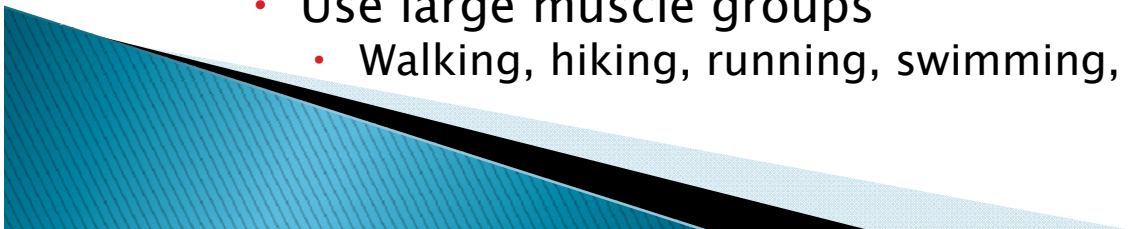
- Moderate
- Vigorous

○ Time (duration)

- ACSM: 20–60 minutes
- Intermittent bouts of ≥ 10 minutes if necessary

○ Type (mode)

- Use large muscle groups
 - Walking, hiking, running, swimming, cycling, rowing



Components

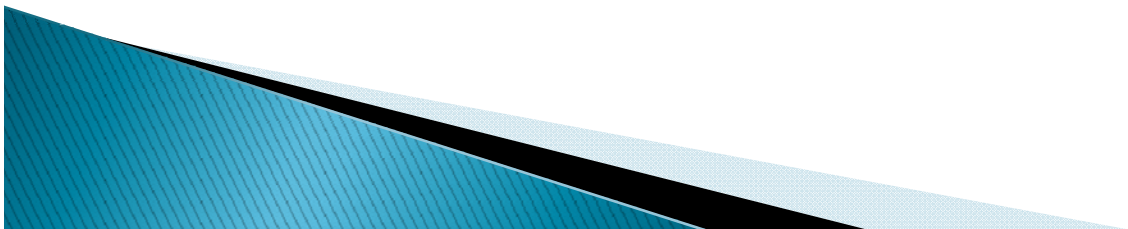
- ▶ **Warm-up**– 5–10 minutes of low to moderate intensity cardiovascular activity
 - Increase body temperature
 - Increase blood flow
 - Reduces potential for after-exercise muscle soreness

- ▶ **Cool-down**– 5–10 minutes of low to moderate intensity cardiovascular activity
 - Prevents pooling of the blood in lower extremities
 - Returns heart rate and blood pressure to normal



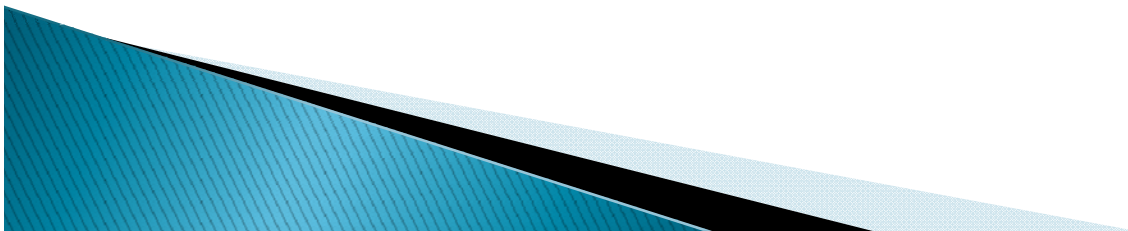
Greater amounts of activity

- ▶ Additional health benefits can be gained through greater amounts of physical activity.
 - 300 minutes of moderate intensity/ week
 - 150 minutes of vigorous intensity/ week
 - combination
- ▶ People who can maintain a regular regimen of activity that is of longer duration or of more vigorous intensity are likely to derive greater benefit.



Rate of progression

- ▶ Initial phase of exercise program
 - Increase duration first
 - Increase of 5–10 minutes per session
- ▶ After one month of exercise
 - Increase frequency, intensity, or duration

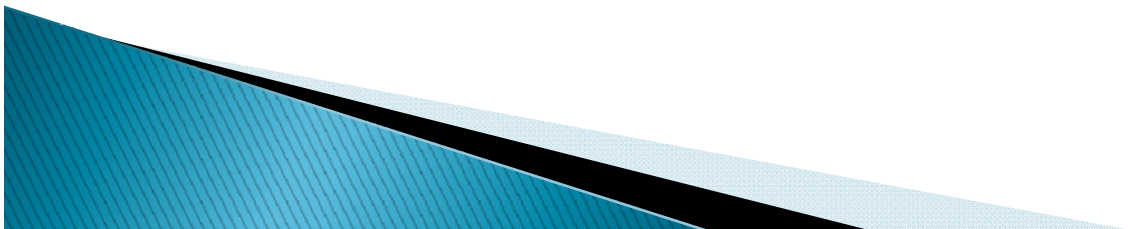


Recommended Guidelines

- ▶ Experts advise consulting with a physician before beginning a new physical activity program for people with chronic diseases, such as cardiovascular disease and diabetes mellitus, or for those who are at high risk for these diseases.
- ▶ Experts also advise men over age 40 and women over age 50 to consult a physician before they begin a **vigorous** activity program

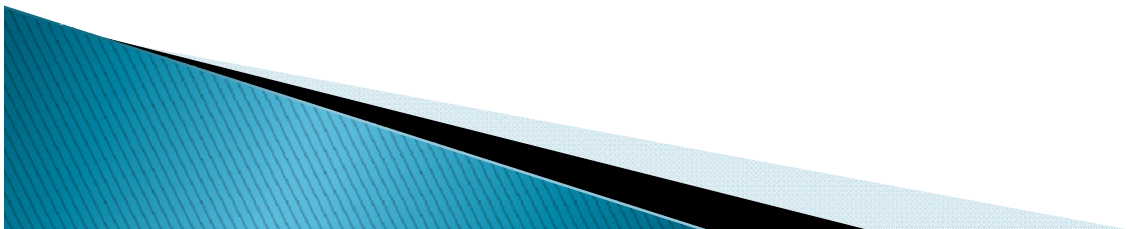
How to be active at your job

- ▶ Take intermittent 10 minute walks during your breaks
 - If it's cold or raining, devise a route throughout your building
- ▶ Take the stairs (repeat)
- ▶ Walk to get your coffee
- ▶ Walk across campus instead of taking the shuttles/buses



Options on Campus

- ▶ Adult Physical Fitness Program
 - Contact Lynn @ 765-285-1140
 - <http://cms.bsue.edu/Academics/CollegesandDepartments/CEPP/APFP.aspx>
- ▶ Concourse
- ▶ Ball Gymnasium (Faculty Free)
- ▶ Student Recreation and Wellness Center
 - <http://recreation.iweb.bsue.edu/Facilities/indoor.html>
- ▶ www.mapmyfitness.com



Questions ???

