



# DELAWARE 4-H

## Healthy Living

### TIPS FOR GUIDING YOUTH FITNESS

#### GOALS

To review fitness and safety tips about exercise and heart rate. Participants will gain knowledge in determine resting and target heart rates as well as ways to measure the intensity of their workouts.

#### SUPPLIES

- This sheet of paper
- Stop watch or timer
- Calculators

#### TIME REQUIRED

20-30 minutes

#### SUGGESTED AUDIENCE

Ages 8 and up

#### PROCEDURE

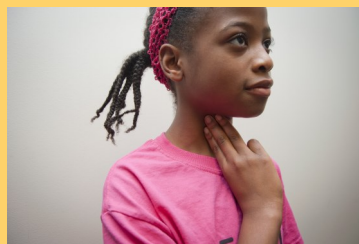
##### Why does your Heart Rate matter?

- Heart rate is used to measure the intensity of physical activity and overall heart function. Physical activity can add years to your life, help to reduce stress, enhance mood, and improve sleep.
- Measuring heart rate enables teens and adults to monitor their fitness and track improvements.
- Activity can be described as light, moderate, or vigorous based on the effort of the person performing the activity.

##### Resting Heart Rate

- How to take heart rate:

**Radial or Carotid** - place 2-3 fingers (no thumb) on the neck or wrist, count for 30 seconds starting from zero, then multiply by 2. This has been the easiest way I've found to teach youth. For yourself, or once the youth are good at finding their pulse, you can count for 6 seconds and add zero to the number counted (again start from zero). You will need a stop watch or timer.



- Resting heart rate should be taken before exercise and activity start. A lower resting heart rate demonstrates the heart is working very efficiently. Adult athletes' resting heart rates tend to be 40-60. For normal adults, the resting heart rate falls between 60-100.
- For teenagers (ages 13-19), a normal resting heart rate is anywhere between 50 and 90 beats per minute. Because of differences in teens' bodies and physiology, the range for an acceptable resting heart rate is much greater than for other age groups. People who experience a lot of anxiety tend to have higher heart rates than others; use of nicotine or caffeine also increases the resting heart rate.<sup>1</sup>
- Record your resting heart rate here: \_\_\_\_\_

<sup>1</sup> Anthony Diaz de la Vega, Normal Pulse Rate for Teenagers, [http://www.ehow.com/about\\_5422487\\_normal-pulse-rate-teenagers.html](http://www.ehow.com/about_5422487_normal-pulse-rate-teenagers.html)

<sup>2</sup> Lisa Bakewell, Fitness Information for Teens, Health Tips about Exercise, Physical Well-Being, and Health Maintenance, 2<sup>nd</sup> Edition, (Omnigraphics Inc.), 2009, 79-81.



### Cooperative Extension

COLLEGE OF AGRICULTURE &  
NATURAL RESOURCES

For information on booking 6-10 hours for your club or students, visit our website at <http://extension.udel.edu/4h>. Or call your County Cooperative Extension Office.



Our thanks for supporting DE 4-H  
"Youth Voice, Youth Choice"  
building healthy communities  
through engaged youth!



# DELAWARE 4-H *Healthy Living*

## TIPS FOR GUIDING YOUTH FITNESS

### How to measure the intensity of your workout

#### A. The Talk Test <sup>2</sup>

*Light Intensity* ... one can sing while doing the activity.

*Moderate Intensity* ... one can talk and carry on a conversation while doing the activity.

*Vigorous Intensity* ... one could not carry on a conversation; one may be able to speak a word or two.

#### B. Target Heart Rate and Estimated Maximum Heart Rate

Knowing the “target” you are aiming to hit in terms of your heart rate, enables you to know if you are achieving the specifications of 60 minutes of endurance/aerobic activity.

1. Determine your Maximum Heart Rate:  $220 - \text{Age} = \underline{\hspace{2cm}}$  Maximum Heart Rate

2. Moderate Activity is 50-70% of a person’s maximum heart rate.

The formula is  $220 - \text{Age} \times 50\%$  (up to 70%) = Moderate Activity

$220 - \underline{\hspace{2cm}}$  (Age) =  $\underline{\hspace{2cm}}$  Your Maximum Heart Rate

Now take your maximum heart rate and multiply by the desired activity level.

$\underline{\hspace{2cm}}$  Your Maximum Heart Rate  $\times .50 = \underline{\hspace{2cm}}$  Moderate

$\underline{\hspace{2cm}}$  Your Maximum Heart Rate  $\times .70 = \underline{\hspace{2cm}}$  Moderate

3. Vigorous activity should be 70-85% of a person’s maximum heart rate.

$220 - \text{Age} = \underline{\hspace{2cm}}$  Maximum Heart Rate

$\underline{\hspace{2cm}}$  Your Maximum Heart Rate  $\times .75 = \underline{\hspace{2cm}}$  Vigorous

$\underline{\hspace{2cm}}$  Your Maximum Heart Rate  $\times .85 = \underline{\hspace{2cm}}$  Vigorous

4. The above procedure is used for youth too. It is helpful to have calculators available.

5. It is beneficial to use the talk test for younger children. The youngest I have taught target heart rate has been age 12.

#### C. Perceived Exertion (Borg Rating)

This scale goes from 6 to 20 with 6 being light and 20 being maximum. This is a subjective measure. Perception of working at 12-14 would be considered a moderate level, while 19 would be considered too hard.

### Safety Tips

- Before engaging in a moderate to vigorous activity, determine if anyone has asthma, allergies, or does not feel well. Encourage youth to work at the level they are comfortable, and make certain that the youth who have inhalers have them easily accessible and used as prescribed.
- Sports physicals are an important aspect of prevention. High Schools often require these to be completed before participating in a sport.
- A routine physical is important too for younger youth.
- Make sure there is always more than one adult available during moderate or vigorous activity, and that a phone is easily accessible.

### CDC Recommendations

- Children and adolescents should have **60 minutes (1 hour)** or more of physical activity **daily**.
- **Aerobic:** Most of the 60 or more minutes a day should either be **moderate or vigorous-intensity aerobic physical activity** and should include **vigorous-intensity physical activity at least 3 days a week**.
- **Muscle-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening physical activity on at least **3 days of the week**.
- **Bone-strengthening:** As part of their 60 or more minutes of daily physical activity, children and adolescents should include bone-strengthening physical activity on at least **3 days of the week**.
- Starting out, the easiest way to keep track is to alternate vigorous and muscle-strengthening days. Remember, we can’t store up fitness. It is important to create a plan and establish a schedule based on your personal interests.

*Thank you for participating in this fun activity!*