

Name \_\_\_\_\_

Form \_\_\_\_\_

Question

Does heart rate increase with exercise?

**AIM:** To investigate if heart rate increase with exercise

### **INTRODUCTION**

Use the following words to fill in the blanks. **carbon dioxide, arteries, oxygen, veins, lungs**

The circulatory system is made up of blood vessels that carry blood away from and towards the

heart. \_\_\_\_\_ carry blood away from the heart and \_\_\_\_\_ carry blood back to the

heart. The circulatory system carries \_\_\_\_\_, nutrients, and hormones to cells, and

removes waste products, like \_\_\_\_\_.

**MATERIALS:** ( equipment used in experiment)

### **METHOD:**

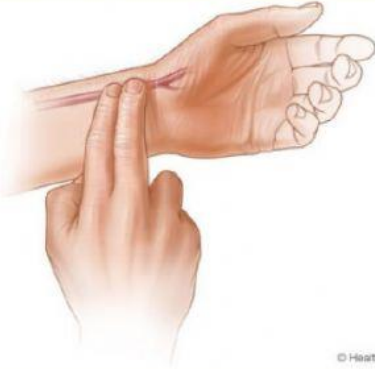
1. Find your pulse.

#### **Taking a pulse (Heart Rate)**

##### **Checking your pulse on the wrist**

You can easily check your pulse on the inside of your wrist, below your thumb.

- Gently place 2 fingers of your other hand on this artery.
- Do not use your thumb, because it has its own pulse that you may feel.
- Count the beats for 30 seconds, and then double the result to get the number of beats per minute.



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#### **Taking a pulse (Heart Rate)**

##### **Checking your pulse in the carotid artery**

You can also check your pulse in the carotid artery. This is located in your neck, on either side of your windpipe. Be careful when checking your pulse in this location, especially if you are older than 65. If you press too hard, you may become lightheaded and fall.



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2. When you feel your pulse, count the number of beats in one minute.

3. Record your results.

4. Do some vigorous exercise for 3 minutes.

5. Immediately find your pulse and count the number of beats in one minute.

6.

7. Repeat steps 1-6 in one hour.

## **RESULTS**

Table showing pulse rate before and after exercise.

|         | Pulse Rate Before Exercise | Pulse Rate After exercise |
|---------|----------------------------|---------------------------|
| Trial 1 |                            |                           |
| Trial 2 |                            |                           |

## **DISCUSSION**

removed, lungs, nutrients, pump

The heart is a \_\_\_\_\_, usually beating about 60 to 100 times per minute. With each heartbeat, the heart sends blood throughout our bodies, carrying oxygen to every cell. After delivering the oxygen, the blood returns to the heart. The heart then sends this deoxygenated blood to the \_\_\_\_\_ to pick up more oxygen. This cycle repeats over and over again.

Heart rate is measured in beats per minute (bpm). During exercise the heart rate increases so that sufficient blood is taken to the working muscles to provide them with enough \_\_\_\_\_ and oxygen. An increase in heart rate also allows for waste products to be \_\_\_\_\_.

## **CONCLUSION** (answers question)

Heart rate \_\_\_\_\_ with exercise.