

Part A3

Systematic investigation in biology


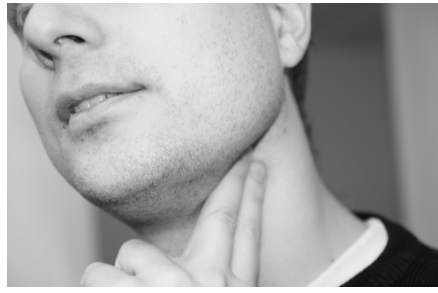
Your assignment is to plan an investigation that you later will carry out and evaluate. The investigation is on variation of the pulse when doing muscle work.

Variation of the pulse
The body's pulse is changing depending on if your muscles rest or work. The diagram shows how the pulse changes in relation to muscle work.

Muscle work
There are two types of muscle work.

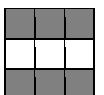
- **Static muscle work**
The muscle is contracted and works continuously without moving the specific part of the body.
- **Dynamic muscle work**
The muscle contracts and relaxes alternately at the same time as the part of the body is moving.

Mesuring the pulse
You can feel your pulse by placing two fingers on your carotid artery or wrist and then count the pulsebeats for 15 seconds. Thereafter, multiply the result with four to get the number of pulsebeats per minute. For instance, $17 \cdot 4 = 68$ pulsebeats/minute.

11. Planning (Time 30 minutes)

You are going to plan an investigation to find out:
How is your pulse changing when doing static and dynamic muscle work, from resting pulse to working pulse and back to resting pulse?



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Method of investigation

Write an instruction to describe step by step how you will proceed in your investigation. Describe with details so that someone else can follow your plan.

Equipment

Specify what equipment you need to realize your investigation.

Leave your plan to your teacher. If needed, you will get a prepared experiment instruction to carry out your investigation.

- Use your own plan Use the prepared experiment instruction

Adjustments from the teacher: