

LAB on Blood Circulation - Simple clues to your heart



Feel your pulse

Your doctor feels your pulse in order to check your heart's rate, rhythm and regularity. Each pulse matches up with a heartbeat that pumps blood into the arteries.

You can tell how fast your heart is beating (heart rate) by feeling your pulse. Your heart rate is the amount of times your heart beats in one minute.

To measure your pulse, you need a watch which shows seconds.

- Place your index and middle finger¹ of your hand on the inner wrist of the other arm or your partner's arm, just below the base of the thumb².
- You should feel a tapping or pulsing against your fingers.
- Count the number of taps you feel in 30 seconds.
- Multiply that number by 2 to find out your heart-rate for one minute

⇒ First measure your "Biology lesson" pulse rate (i.e. the resting pulse rate).

⇒ Then do 30 knee bends (to wake up) and measure your pulse again.

name			
resting pulse rate			
pulse rate after 30 knee bends			

⇒ Discuss and note down (back of page) reasons for the difference.
(Hints: mitochondria, ATP)

Normal values:

For resting heart rate:

- newborn infants; 100 to 160 beats per minute
- children 1 to 10 years; 70 to 120 beats per minute
- children over 10 and adults; 60 to 100 beats per minute
- well-trained athletes; 40 to 60 beats per minute

Listen to the sounds on the CD to get an idea of the differences.

⇒ Compare your values to those stated here. Are they normal?

⇒ Suggest reasons for the different resting values at different ages and of trained athletes (back of page).

¹ index finger = Zeigefinger; middle finger = Mittelfinger

² thumb = Daumen