

HEART RATE (HR) and BLOOD PREASURE (BP) MEASURING

NAME:

DATE OF MEASUREMENT: DATE OF BIRTH:

HRrest (palpation method) = beats/min

HRmax = 208 – (0.7 · age) =beats/min

BP _s	BP _d	HR	S (m ²)

S = body surface area (m²)

CARDIAC OUTPUT (Q)

$$Q (ml \cdot min^{-1}) = \frac{BP_{puls} \cdot c}{BP_s + BP_d} \cdot HR \cdot S$$

BP_{puls} = pulse pressure= sTK-dTK

BP_s = systolic BP

BP_d = diastolic BP

c = constant = 200

Q (ml · min⁻¹) =

STROKE VOLUME (Q_s)

$$Q_s (ml) = Q (ml \cdot min^{-1}) : HR$$

Q_s (ml) =

HR and BP AFTER LOAD

Working procedure:

1. After several minutes of resting, measure the HR and BP.
2. Perform 30 deep squats with frequency 1 squat per second.
3. Immediately after the load, measure HR and BP and then in every minute until the return to resting values (at least 2 minutes after the load).

Recording of measurement:

Values	HR	BP (mmHg)			Q	Q _s
		BP _s	BP _d	BP _{puls}		
rest						
immediately after load						
1 min. after load						
2 min. after load						
3 min. after load						
4 min. after load						
5 min. after load						

CONCLUSIONS

(What factors contribute to HR increase during workload? Explain how the BP assessment works. Compare your assessed HR and BP to a corresponding sample or your classmates. Was the restoration of HR and BP fast or slow? Advocate your claim.)