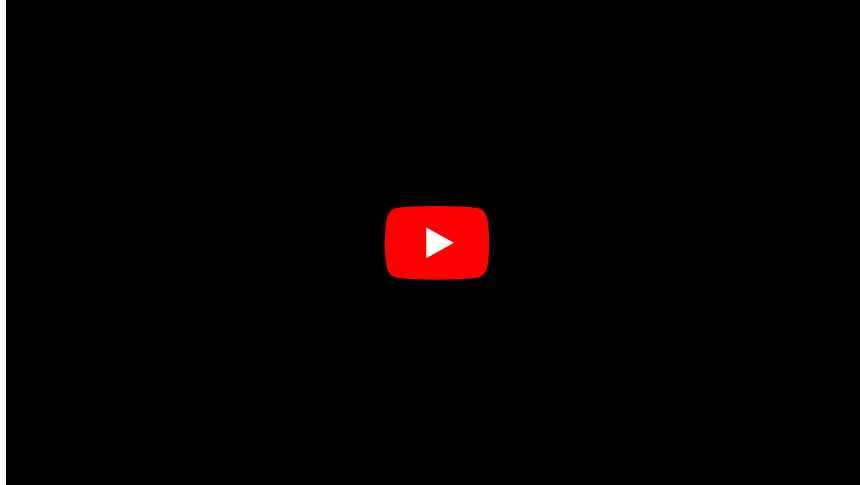


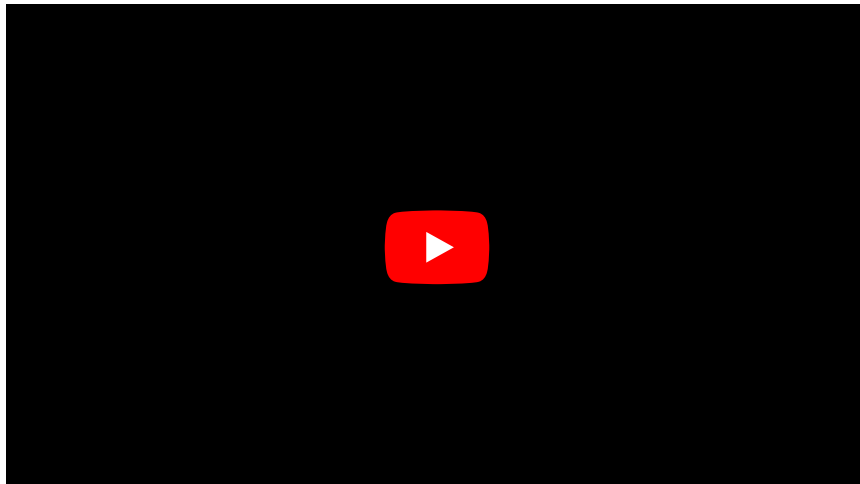
Bradycardia

Bradycardia is a *slowing of the heart rate* below the physiological limit, most commonly considered to be bradycardia at **less than 60 beats/min** (in adults). Bradycardia can occur in sleep or in a state of physical and mental relaxation. It is often present physiologically under resting conditions in trained athletes. The opposite of bradycardia is tachycardia.

Bradycardia:



Bradycardia 2:

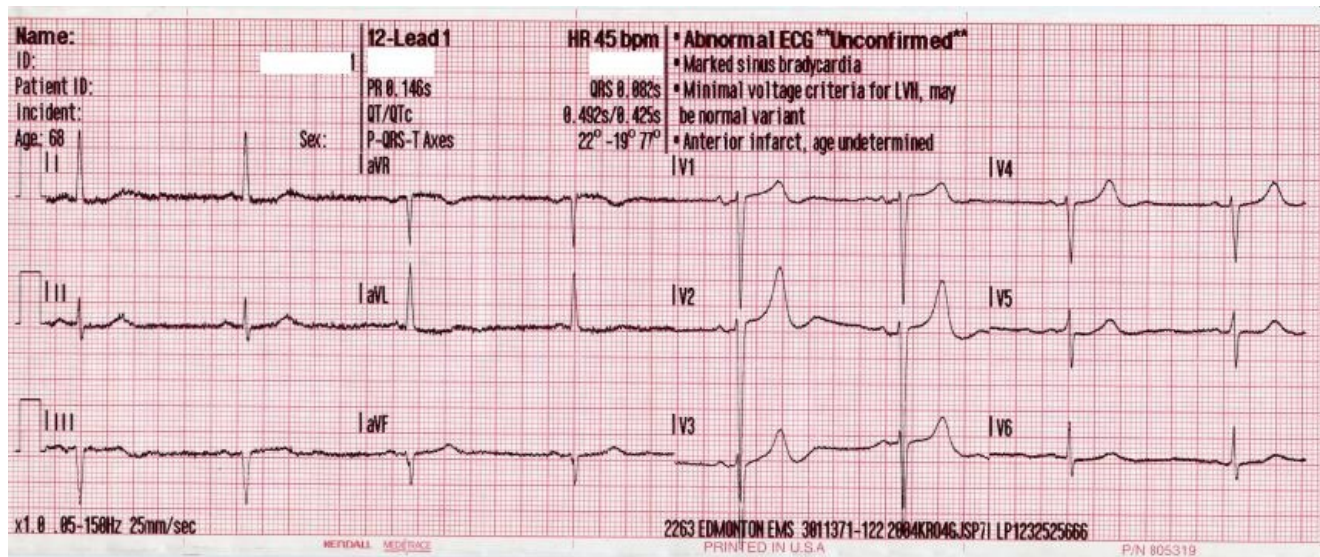


Pathological causes of bradycardia include hypothyroidism, disease of the sick sinus syndrome (SSS), disengagement of the sinus node, fluctuations of the ions (hyperkalaemia), intracranial injury, myocardial infarct, inflammation of the heart.

Bradycardia therapy (*for men <60 beats, for women <65 beats*):

1. **atropine i.v.**
 - **operation:**
 - the greatest effect on the sinus and atrioventricular nodes, the distal efficiency decreases
 - with complete AV blockages with broad QRS effectiveness little/none
 - **mechanism:** Vagolytic
 - **effect:** short-term about 30 min, cannot be given long-term
 - **indication:** in bradycardia <60/min.
 - **dose:** 0.5 mg i.v., repeat max to 3 mg i.v., but not as a bolus
2. **isoprenaline in i.v. infusion**
 - **operation:** catecholamins
 - **mechanism:** sympathomimetic agent
 - **dose:** Isoprenaline 5 µg/min
 - **effect:** at the sinusoidal node, atrioventricular node, even at the more distant centers
3. **discontinue bradyarrhythmic drugs:** beta blockers or antiarrhythmics

4. therapies for possible thyroid hypofunction
5. (temporary) cardiostimulation



References

Referenced articles

- Tachycardia
- Heart rhythm disorders
- AV blockade

External references

- Advanced Life Support in bradycardia (<https://www.akutne.cz/algorithm/en/68-advanced-life-support-in-bradycardia/>)
- Bradykardie (česká wikipedie)
- Bradycardia (anglická wikipedie)

Sources

- ŠVÍGLEROVÁ, Jitka. *Bradykardie* [online]. The last revision 2009-02-18, [cit. 2010-11-12]. <<https://web.archive.org/web/20160416225124/http://wiki.lfp-studium.cz/index.php/Bradykardie>>.

non-existent now

- ŠEVČÍK, Pavel – MATĚJOVIČ, Martin. *Intenzivní medicína.. 3., přeprac. a rozš. edition*. Praha : Galén, spol. s r.o., 2014. 1195 pp. ISBN 978-80-7492-066-0.
- » *Česká resuscitační rada* [online]. Dostupné z: http://www.resuscitace.cz/wp-content/uploads/2011/01/Poster_10_ALS-BRAD_01_01_CZE_V20110112.pdf non-existent now