



### Module: Hypertension – Blood pressure

- Blood pressure is the pressure with which the blood is being pumped through the vessels of the body
- Blood pressure is being differentiated into **systolic** (the higher value) and **diastolic** blood pressure (the lower value)
- What causes high blood pressure?
  - High blood pressure is the result of certain diseases or the sum of several risk factors.
  - In 90% of the cases, the exact triggers and causes are not known
  - In approximately 10%, renal diseases or hormone disorders contribute to high blood pressure.
- What are the risk factors for high blood pressure?
  - Overweight
  - Nutrition with too much fat and sugar
  - Eating too much salt
  - Smoking / tobacco
  - Reduced physical activity
  - Alcohol in high amounts
  - Permanent stress
  - Diabetes mellitus (high levels of sugar/glucose in blood)
- What blood pressure is normal?
  - Systolic pressure should be < 140 mmHg
  - Diastolic pressure should be < 90 mmHg
- Why is it necessary to treat high blood pressure? High blood pressure is often without symptoms, but it must be treated to prevent complications of important organs !
- These are the complications of high blood pressure: Myocardial infarction, stroke, vision loss, rupture of vessels, heart failure, renal impairment, intermittent claudication (impairment of walking)
- What can I do to positively influence my blood pressure?
  - Be physically active
  - Eat healthy
  - Enjoy eating without feeling sorry, but eat right!
  - Alcohol in only small amounts
  - No smoking/ tobacco
  - Moderately consume coffee
  - Little intake of sodium
  - As little stress as possible

- Tips for the correct measurement of the blood pressure:
  - Ideally twice a day, in the morning and the afternoon
  - Measure at rest (at least 5 min after activity)
  - Don't smoke or do not have a heavy meal before the measurement
  - Sit upright and have the arm in a straight position (e.g. resting on a table)
  - Document the results
- What should I do, if the blood pressure is repeatedly not in the normal range?
  - Emergency: Send a patient to emergency care immediately, if systolic blood pressure is 200mmHg or more
  - Recommend to see an ambulatory doctor, if blood pressure is *repeatedly* > 140 mmHg systolic or/and > 90 mmHg diastolic
  - *Repeatedly* means: Elevated blood pressure at 2-3 separate occasions or more, on different days of a week
    - The doctor will initiate appropriate medication (e.g. Beta-Blocker, ACE-inhibitor, Calcium channel blocker)