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THE IMPORTANCE OF THE ENVIRONMENT IN THE ORIGIN OF YOUR HEART DISEASES AND ARRHYTHMIAS

Bazarova Nargiza Farxodjon qizi

Student of Andijan State Medical Institute,Uzbekistan

Annotation: Heart disease is a variety of issues that can affect your heart. When people think about heart disease, they often think of the most common type — coronary artery disease (CAD) and the heart attacks it can cause. But you can have trouble with different parts of your heart, like your heart muscle, valves or electrical system.

Key words: heart, blood, disiases, body system.

When your heart isn't working well, it has trouble sending enough blood, oxygen and nutrients to your body. In a way, your heart delivers the fuel that keeps your body's systems running. If there's a problem with delivering that fuel, it affects everything your body's systems do.

Lifestyle changes and medications can keep your heart healthy and lower your chances of getting heart disease.

Heart disease types include:

Narrowing of your heart's blood vessels because of fatty deposits (coronary artery disease).

Abnormal heart rhythms (arrhythmias).

Heart valve diseases.

Abnormal heart muscle (cardiomyopathy).

Heart squeezing and relaxation difficulties (heart failure).

Heart issues you have at birth (congenital heart disease).

Issues with the fluid-filled sac surrounding your heart (pericardium).

Arrhythmias are defined by the speed of the heartbeats: slow and fast. They include bradycardia and tachycardia, with a variety of conditions under those two categories.
1. Slow heartbeat - bradycardia

Bradycardia occurs when your heart beats so slowly that it cannot pump enough blood for your body's needs. Untreated bradycardia can cause excessive tiredness, dizziness, light-headedness or fainting. An electronic pacemaker can help the heart to beat normally.

Bradycardia can be caused by:

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- Sicksinussyndrome

This is a malfunction in the heart's natural pacemaker (the sinus node), which makes it fire too slowly. This condition may be caused by growing older or by disease. Some medications can also cause or aggravate a slow heartbeat. The resulting arrhythmia may be temporary or permanent. It can be treated with medication or with an electronic pacemaker.

- Heartblock

This is the slowing down or interruption of the electrical signal to the lower chambers of the heart which cause the heart muscle to contract. The heart's electrical system normally sends signals from the upper chambers of the heart (atria) to the lower chambers (ventricles) in a pattern that causes a heartbeat, a coordinated contraction of the heart muscle.

2. Rapid heartbeat - tachycardia

Tachycardia occurs when your heart beats too fast. There are two main types: Tachycardia above a ventricle and Tachycardia in a ventricle.

- Tachycardia above a ventricle (supraventricular)

These are rapid heartbeats in the atria (the top chambers of your heart) or in the AV (atrioventricular) node – the electrical connection between the atria and the ventricles (the lower chambers of your heart).

- Atrialflutter

In atrial flutter, an extra or early electrical impulse travels around and around the atria in a circular path rather than down along its normal path. This electrical signal causes the atria to "flutter," contracting at a much higher rate than normal. Atrial flutter is usually not life threatening, but can cause chest pain, faintness or other more serious problems.

- Atrialfibrillation (Afib)

This common form of tachycardia occurs when the electrical activity in the atria is disorganized and very rapid. The pattern of electrical activity stimulates the atria randomly and at a high speed, which causes a series of very rapid contractions of the heart's upper chambers, preventing them from pumping effectively. Though not usually life-threatening, the rapid, irregular and uncoordinated beating of the ventricles may cause light-headedness or palpitations. If it goes on for several days or longer, it may increase your risk of stroke, because blood trapped in the atria can clot and travel from your heart to your brain, causing a stroke.

- Paroxysmal supraventricular tachycardia (PSVT)

This type of tachycardia produces heart rates between 140 and 250 beats per minute. PSVT usually occurs in people who are born with an extra electrical circuit or pathway between the atria and the ventricles. PSVT often starts when you are young, but it may also start later in life. It may be distressing, but it is rarely life-threatening.

- Wolff-Parkinson-White (WPW) Syndrome

If you have WPW syndrome, an extra, abnormal electrical pathway in your heart leads to tachycardia. The abnormality is present at birth (congenital), but WPW is usually diagnosed in adolescence or early adulthood. Most people with WPW syndrome lead normal lives. Many have no symptoms and have no episodes of tachycardia. Some people experience rapid heartbeats (paroxysmal supraventricular tachycardia), with heart rates rising up to 240 beats per minute. Other symptoms include palpitations, shortness of breath, fainting and possibly angina.

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Tachycardia in a ventricle

- Ventriculartachycardia

Ventricular tachycardia occurs when the ventricles (the lower chambers of the heart) beat too fast. The ventricles are responsible for pumping blood to the rest of the body. If tachycardia becomes so severe that the ventricles can't pump effectively, it may be life threatening. Ventricular tachycardia can be treated with medications. Other treatments include an implantable defibrillator, catheter ablation, non-surgical procedures to destroy malfunctioning cells, or surgery to remove damaged heart tissue.

- Ventricular fibrillation

Incorrectly timed electrical signals or signals that do not follow normal pathways, may set off ventricular fibrillation. Like atrial fibrillation, the electrical signal that normally triggers a heartbeat splits and goes off on random paths around the ventricles instead of following its normal route. This causes a series of rapid – but ineffective – contractions of the ventricles. Without treatment, ventricular fibrillation may be fatal. Treatment is an electric shock to the heart, using a machine called a defibrillator. The shock resets the heart and returns it to its normal rhythm.

- Postural orthostatic tachycardia syndrome (POTS)

POTS makes it difficult to adjust to a standing position from a lying down position. People with POTS experience a rapid heartbeat that can increase up to 120 beats per minute within 10 minutes of standing. Other common symptoms include headaches, light-headedness, inability to exercise, extreme fatigue, sweating, nausea, chest discomfort, brain fog (mental clouding) and near fainting (syncope).

POTS commonly appears between the ages of 12 and 50 and typically affects more females than males. To diagnose POTS, your doctor will measure your blood pressure and heart rate while you're lying down and standing up. Measurements are taken immediately after changing positions, as well as at 2, 5 and 10 minute intervals after standing up. POTS is frequently misdiagnosed as panic attacks or chronic anxiety. Sometimes a test called a head upright tilt table exam will be performed to help confirm the diagnosis.

Although POTS can be a severely debilitating disorder, many patients will slowly improve over time and the majority will respond to treatment.

Heart attacks can be divided into 2 types.

- STEMI (ST-elevation myocardial infarction)
  - This is the complete blockage of blood flow in a coronary artery supplying the heart with oxygen-rich blood.
  - Because of the complete loss of blood flow, the full thickness of the heart muscle supplied by that artery may die.
  - This causes a change on the ECG (electrocardiogram). The ECG will show ST-elevation corresponding to the location of the damage to the heart wall.
- Non-STEMI (Non-ST-elevation myocardial infarction)
  - This is the partial blockage of blood flow in a major coronary artery supplying the

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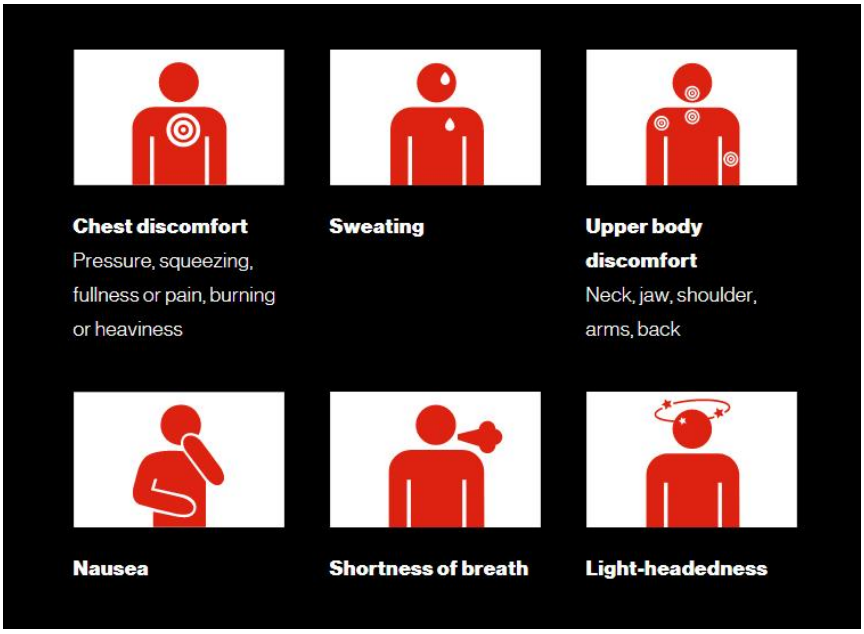
heart with oxygen-rich blood.

- Only part of the heart wall thickness is damaged, and no ST-elevation is present on an ECG.Signs of a heart attack



Chest pain or discomfort is the most common symptom of a heart attack in both men and women. However:

- The symptoms may not always be sudden or severe.
- Some people do not experience any chest pain.
- Some people only have mild chest pain or discomfort.
- Some people only experience one symptom.
- Other people may have a combination of symptoms.

If you experience any of these signs of a heart attack:

- CALL 9-1-1 or your local emergency number immediately.
- Stop all activity. Sit or lie down, in whatever position is most comfortable.
- Take your nitroglycerin. If you take nitroglycerin, take your normal dosage.
- Chew and swallow ASA (Aspirin), if you are not allergic or intolerant – either one 325 mg tablet or two 81 mg tablets.
  - ASA can help by stopping the blood clot that is causing the heart attack from getting any bigger.
  - Do not take other pain medications such as Tylenol (acetaminophen) or Advil (ibuprofen) instead of ASA.
  - Do not substitute ASA for medical care. Call 9-1-1 or your local emergency number first.
- Rest and wait. Stay calm while waiting for help to arrive.

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- Keep a list of your medications in your wallet and by the phone. Emergency personnel will want this information.Signs for men and women

Women generally recognize the “Hollywood heart attack” with chest-clutching, crushing pain. If their pain is less severe, or if they have non-pain signs such as nausea, sudden fatigue or shortness of breath (signs more often reported by women), they are more likely to delay getting to emergency care, and once there, they are less likely to get fast, aggressive treatment.

References:

1. Shodieva, E. (2024). OTOMYCOSIS DISEASE AND ITS ETIOTROPIC TREATMENT METHODS. *Science and innovation*, *3*(D1), 155-161.
2. Shodiyeva, E. (2023). CHRONIC VASOMOTOR RHINOPATHY AS A SYNONYM FOR CHRONIC ALLERGIC RHINOPATHY. *Science and innovation in the education system*, *2*(11), 87-90.
3. Худойбердиева, М. Ж., Хакимова, Р. А., Султонов, Г. И., & Батирова, Б. Т. (2019). Современные методы диагностики абдоминального туберкулёза. *Новый день в медицине*, (4), 358-360.
4. Shodiyeva, E. (2023). TREATMENT OF VASOMOTOR RHINITIS WITH HIGH-ENERGY LASER IN AN OUTPATIENT CONDITION. *Theoretical aspects in the formation of pedagogical sciences*, *2*(18), 143-145.
5. Максумова, Д. К., Хакимова, Р. А., Мамарасулова, Д. З., Ботирова, Б. Т., & Абдуллаев, М. Б. (2016). Клинические проявления туберкулеза легких на ранних и поздних стадиях ВИЧ-инфекции». *Вісник проблем біології і медицини*, *2*(1), 96-99.
6. Yusupjonovna, S. E. (2024). DIFFUSE EXTERNAL OTITIS. *FORMATION OF PSYCHOLOGY AND PEDAGOGY AS INTERDISCIPLINARY SCIENCES*, *3*(29), 466-468.
7. Yusupjonova, S. E. (2023). Chronic Vasomotor Allergic Rhinitis. *Texas Journal of Medical Science*, *25*, 83-85.
8. Ganiev, B. S., & Ubaydullaeva, N. N. (2019). MEDICAL AND SOCIAL ASPECTS OF BRONCHIAL ASTHMA PREVENTION IN THE MODERN FORM OF PRIMARY HEALTH CARE ORGANIZATION IN UZBEKISTAN. *Toshkent tibbiyot akademiyasi axborotnomasi*, (5), 163-165.
9. Utanov, B., Mamatkulov, B., Akhmedova, M., Murodov, J., & Abdiqulova, D. (2021). Correlation Of The Interaction Of Agricultural Production With The Volume Of Dehkanproduction In Uzbekistan. *Ilkogretim Online*, *20*(3).
10. Jo’rayevich, M. J., & Laziz, J. (2024). JISMONIY TARBIYA VA SPORT-YOSHLARNING IJTIMOIY FAOLLIGINI RIVOJLANTIRUVCHI VOSITA SIFATIDA. *Journal of Innovation in Education and Social Research*, *2*(4), 98-101.
11. Murodov, J. J. (2022). Women's sports is a key link of physical culture.
12. Махмадиева, Г. (2021). Инновационные методы формирования у учащихся устной и письменной речи в процессе обучения русскому языку. *Общество и инновации*, *2*(3/S), 84-89.
13. Ботирова, Б. Т., & Орипов, Ш. Ю. (2017). Особенности течения туберкулеза у детей и

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подростков из очагов туберкулезной инфекции.

14. Махмадиева, Г. С. А. (2022). Технология обучения русскому языку как неродному средствами иммерсивных обучающих программ. *Academic research in educational sciences*, *3*(4), 51-55.
15. Khamrakulova, B. (2023). ZAMONAVIY INNOVATSION TEXNOLOGIYALARNING CHET TILINI OQITISHDAGI O'RNI VA ULARDAN FOYDALANISH. *Новости образования: исследование в XXI веке*, *1*(7), 698-701.A
16. Sh, M. S., & Mukhammedova, M. G. (2024). RATIONALE OF INDICATORS FOR ASSESSING THE EFFECTIVENESS OF MEDICAL EXAMINATION IN THE MILITARY PERSONNEL OF THE ARMED FORCES OF THE REPUBLIC OF UZBEKISTAN. *World Bulletin of Public Health*, *32*, 150-152.