How is Hormone Imbalance associated with Heart Disease?

Hormones are powerful chemical messengers that play a role in virtually all major bodily systems and functions including your cardiovascular system.

A three minute cardiovascular assessment will provide valuable information to determine your risk for cardiovascular related disease.





Optimal Blood Flow Is Essential To carry oxygen and nutrients to your body's tissues

To carry carbon dioxide and waste products away from the tissues. To sustain life and promote the health of all the body's tissues. There are three main types of blood vessels: Arteries, Veins and Capillaries



- The arteries (red) carry oxygen and nutrients away from your heart, to your body's tissues. Arteries begin with the aorta, the large artery leaving the heart.
- They carry oxygen-rich blood away from the heart to all of the body's tissues.
- They branch several times, becoming smaller and smaller as they carry blood further from the heart.

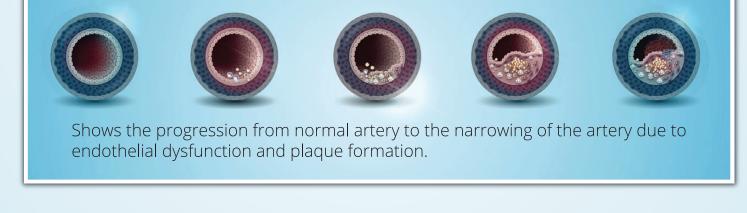


- The veins (blue) take oxygen-poor blood back to the heart. • These are blood vessels that take oxygen-poor blood back to the heart.
- Veins become larger and larger as they get closer to the heart.
- The superior vena cava is the large vein that brings blood from the head and arms to the heart, and the inferior vena cava brings blood from the abdomen and legs into the heart.

Capillaries

- Capillaries are small, thin blood vessels that connect the arteries and the veins. • Their thin walls allow oxygen, nutrients, carbon dioxide and waste products to pass to and from
- the tissue cells.

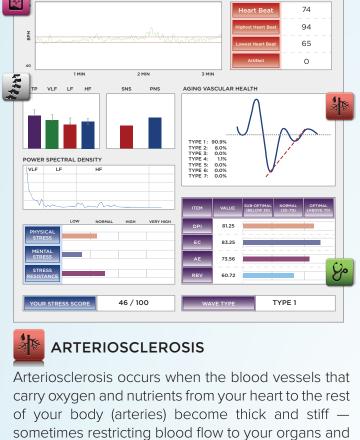
This vast system of blood vessels - arteries, veins, and capillaries - is over 60,000 miles long. Blood flows continuously through your body's blood vessels. Your heart is the pump that makes it all possible.



information to determine your risk for cardiovascular related disease. Make an appointment with your doctor today. CARDIOVASCULAR ASSESSMENT

A three minute cardiovascular assessment will provide valuable

SAMPLE REPORT HEART RATE VARIABILITY (HRV) Measures the degree of fluctuation in the length of intervals



tissues. Healthy arteries are flexible and elastic, but over time, the walls of your arteries can harden. WAVEFORM PATTERNS & WHAT THEY MEAN FOR YOU WAVE TYPE 1 WAVE TYPE 2 WAVE TYPES 3 & 4 Blood circulation Circulation poor, Circulation good, & artery state is great. slight build up starting. build up starting.

fluctuation in heart rate while unhealthy people have a simple and consistent heart rate.

HRV measures the adaptability of the cardiovascular system and autonomic nervous system, which is composed of the sympathetic nervous system (SNS) and parasympathetic

between heart beats. For healthy people, HRV shows a

nervous system (PNS). Your SNS plays the role of the accelerator, also known as flight or fight. Your PNS functions as the brake, also known as rest and repair. A healthy person has a balanced autonomic nervous system. **DEFINITIONS** DPI - Differential Pulse Wave Index: Represents the overall



health of the cardiovascular system. DPI is the main indicator that represents the aging of arteries. EC - Eccentric Constriction: Represents the contraction power

circulation dysfunction.

of vessels from the left ventricle. AE - Arterial Elasticity: Analyzes the blood circulation, the vascular elasticity and resistance of the vessels. It detects early cardiovascular disease like atherosclerosis and peripheral

RBV - Remaining Blood Volume: The remaining blood volume in the vessels after systolic contraction on the heart. If the blood vessels are healthy, there is little remaining blood volume.

WAVE TYPES 6 & 7

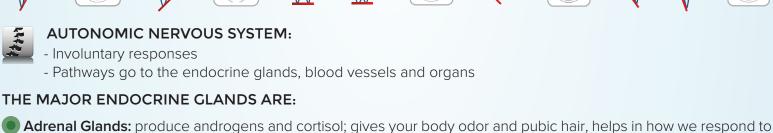
Circulation very bad,

build up serious.

WAVE TYPE 5

Circulation bad,

build up increasing.



Hypothalamus: produces hormones that regulate body temperature, appetite and weight, mood, sex drive, sleep,

stress; regulates blood pressure and more.

- and thirst. Ovaries: female reproductive glands that produce eggs and sex hormones – including
 - estrogen, testosterone and progesterone which are vital to reproductive organ development, breast development, bone health, pregnancy and fertility.

burns calories and how fast the heart beats.

- Pancreas: produces insulin, glucagon and other hormones but primarily responsible for controlling blood sugar levels.
 - **Parathyroid:** controls the amount of calcium in our bones and blood. **Pineal Gland:** produces melatonin, which is important for sleep cycles.
 - Pituitary Gland: the "master control gland" makes hormones that control growth, reproduction, lactation, and the activity of other glands.

Testes: male reproductive glands produce sperm and secretes

testosterone. Thymus: active until puberty, produces cells crucial to the immune

system that protect the body from threats such as viruses and infections. Thyroid: produces hormones that control the rate at which the body