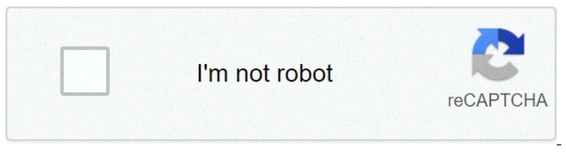

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Blood systemic circulation

Blood pressure is a vital sign that reflects the pressure exerted on blood vessels when blood is forced by the heart during contraction. explaining the topic of arterial pressure key takeaways key points diastole is relaxation of the rooms of the heart and the sistole is the contraction of the rooms of the heart. blood pressure is composed of systolic and diastolic blood pressure, which correspond to pressure after heart contraction and pressure during relaxation for the heart, respectively. normal blood pressure should be about 120/80, with the systolic number on the top. the average blood pressure decreases while the circulating blood moves away from the heart through arteries, capillaries and veins due to the viscose loss of energy. average blood pressure drops during circulation, although most of this decrease occurs along the small arteries and arterials. Key terms blood pressure: blood pressure against the walls of the arteries and veins; varies during the heartbeat cycle and according to the age, health and physical condition of a person. systolic pressure: maximum blood pressure during heart contraction. diastolic pressure: minimal blood pressure between contractions, when the heart expands and recharges. blood pressure is the blood pressure exerting on the wall of blood vessels. this pressure originates in the contraction of the heart, which forces blood from the heart and blood vessels. two mechanisms take place in the heart: diastole and sistole. diastole is the relaxation of the rooms of the heart and the sistole is the contraction of the rooms of the heart. systolic pressure is therefore the pressure that your heart emits when the blood is forced by the heart and the diastolic pressure is the pressure exerted when the heart is relaxed. This is the main mechanism with which blood pressure works. blood pressure is one of the main vital signs. during each heartbeat, blood pressure varies between a maximum blood pressure (sistolic) and a minimum blood pressure (diastolic.) a normal blood pressure should be about 120/80, with systolic pressure expressed earlier. measurement of vital signs using a skewer: blood pressure and pulse, or vital signs, are measured as indicators of different aspects of cardiovascular health. The differences in the average blood pressure are responsible for the blood flow from one position to another in circulation. the average blood flow depends on the resistance to the flow presented by the blood vessels. the average blood pressure decreases while the circulating blood moves away from the heart through arteries, capillaries and veins due to the viscose loss of energy. average blood pressure decreases duringalthough most of this decrease occurs along the small arteries and arterials. Gravity affects blood pressure through hydrostatic forces (for example, during stability) Valves in veins, breathing and pumping from contraction of skeletal muscles also affect venous blood pressure. Blood blood measurementwithout further specifications usually refers to systemic arterial pressure measured at the upper arm. Distinguish between arterial pressure and venous blood pressure Keyboards Systemic blood pressure refers to blood pressure exerted on blood vessels in systemic circulation, and is often measured by blood pressure, or blood pressure exerted on the arteries during cardiac contractions. Blood pressure (BP), sometimes referred to as arterial pressure, is the pressure exerted by circulating blood on the walls of blood vessels, and is one of the main vital signs. All blood pressure levels put mechanical stress on the arterial walls. Higher pressures increase the heart workload and the progression of non-healthy tissue growth (atheroma) that develops within the arteries walls. Key terms atheroma: An abnormal fat that develops within the walls of the arteries. blood pressure: Blood pressure inside an arterial vase, typically brachial artery in the upper arm. Calculated on a heart cycle and determined by the cardiac output (CO), systemic vascular resistance (SVR), and central venous pressure (CVP). It can be roughly determined by measurements of systolic pressure and diastolic pressure while there is a normal rest heart rate. systemic circulation: The part of the blood circulation that carries oxygenated blood away from the heart to the body, and returns deoxidised blood back to the heart. The measurement of blood pressure without additional specifications usually refers to systemic arterial pressure, defined as pressure exerted by circulating blood on the walls of blood vessels. The pressure is generally measured with a blood pressure cuff (sfigmomanometer) wrapped around a person's upper arm, which measures pressure in brachyl artery. A person's blood pressure is usually expressed in systolic pressure on diastolic pressure and is measured in mercury millimeters (mmHg), for example 140/90. Blood pressure in the arteries is much higher than in the veins, partly due to the reception of blood from the heart after contraction, but also because of their contractual capacity. The tunic means of the arteries are thickened compared to the veins, with smoother muscle fibers and elastic tissue. Together, these generate elastic recoil and contraction of blood vessels, allowing the maintenance of a higher pressure. Typical tools of the autcultatory measure: Here are a stethoscope and a skewer, used for ascultatory measurement. While the average blood pressure values could be calculated for a given population, there is a largeFrom person to person and even from minute to minute to an individual. Furthermore, the average blood pressure of a specific population has only a questionable correlation with its general health. However, in a study of 100 human subjects without known history of The average blood pressure of 112/64 mmHg, currently classified as a desirable value or â € œnormalâ €. The normal values fluctuate through the 24-hour cycle, with higher readings in the afternoons and lower readings of arterial pressure changes: arterial pressures change through the cardiac cycle. The risk of cardiovascular disease increases progressively above 115/75 mmHg. In the past, hypertension was diagnosed only if the second-pressure sub-pressure signs were present together with a prolonged high systolic pressure reading on different visits. The hypotension is generally diagnosed if there are obvious symptoms. Clinical trials show that people who maintain arterial pressures at the low level of these intervals have a very better cardiovascular health in the long term. The main medical debate concerns the aggressiveness and the relative value of the methods used to lower pressure in this field for those with high blood pressure. The most commonly observed elevations in older people, although often considered normal, are associated with greater morbiality and mortality. Arterial hypertension Arterial hypertension can be an indicator of other problems and can have long-term adverse effects. Sometimes it can be an acute problem, like a hypertensive emergency. All levels of arterial pressure put mechanical stress on arterial walls. The higher pressures increase cardiac workload and the progression of the growth of non-healthy tissue (atheroma) that develops within the walls of the arteries. Higher is the pressure, more stress that is present, more atheroma tends to progress, and more cardiac muscle can thicken, enlarge and weaken over time. Persistent hypertension is one of the risk factors for stroke, heart attacks, heart failure and arterial aneurysms, and is the main cause of chronic renal failure. Even moderate elevation of blood pressure leads to less expectancy of life. On average the arterial pressures 50% or more above average, a person can expect to live no more than a few years unless he is adequately treated. In the past, most of the attention was paid to diastolic pressure, but now we know that both systolic high pressure and the high pressure of the wrist (the numerical difference between systolic and diastolic pressures) are also risk factors for the illness. In some cases, a decrease in excessive diastolic pressure can actually increase the risk, probably due to the greater difference between systolic and diastolic pressures. If systolic blood pressure is high (> 140) with a normal diastolic blood pressure (Ï¼ï ± 90), it is called â € œInsolated systolic hypertensionâ € and can present a health concern. There venous is the vascular pressure in a vein or atria of the heart, and is much lower than blood pressure. Distinguishing venous blood pressure from arterial pressure Key Takeaways Key points Venous pressure values are commonly 5 mmHg in the right atrium and 8 mmHg in the left atrium. There are several measurements of venous blood pressure Positions in the heart, including the central venous pressure, the jugular venous pressure and the venous pressure of the portal. The venous portal pressure is the blood pressure in the vein of the portal and is normally 5 - 10 mm Hg. Venium pressure variants include centralized venous pressure, which is a good approximation of the right atrial pressure, which can therefore be used to calculate the diastolic volume of the right ventricular end. The neurogenic and hypovolemic shock can cause fainting. When the smooth muscles surrounding the veins loosened, the veins fill up with most of the blood in the body, keeping blood away from the brain and causing unconsciousness. Key terms central venous pressure: blood pressure in the thoracic hollow vein, near the right atrium of the heart, which reflects the amount of blood that returns to the heart and the capacity of the heart to pump blood into the arterial system. Jugular venous pressure: the pressure observed indirectly above the venous system by displaying the internal jugular vein. Venous system: the portion of the circulatory system composed of veins, which carry the blood to the heart. Blood pressure generally refers to arterial pressure in systemic circulation. However, the measurement of pressure in the human venous system and pulmonary vessels play an important role in the intensive therapy medicine and are physiologically important in ensuring the correct return of the blood to the heart, maintaining the flow in the closed circulatory system. The human venous system: the veins (from the Latin vein) are blood vessels that bring blood to the heart. The veins differ from the arteries in the structure and function; The arteries are more muscular than the veins, while the veins are often closer to the skin and contain valves to help keep the blood scroll to the heart. Systemic venous pressure The venous pressure is the vascular pressure in a vein or the Atria of the heart. It is much lower than the arterial pressure, with common values of 5 mmHg in the right atrium and 8 mmHg in the left atrium. Venium pressure variants include: central venous pressure, a good approximation of the right atrial pressure, which is a certain determinant of the right ventricular extremitation diastolic volume. Yugular venous pressure (JVP), indirect pressure observed on the venous system. It can be useful to differentiate different forms of heart disease and lungs. Venous portal pressure or blood pressure in the vein of the portal. Normally it is 5 Ã ¢ â‚¬ "10 mmHg. Structure and function Vein in general, the veins work to return the defeated blood in the heart, and are essentially tubes that collapse when their lumens are not full of blood. Compared to the arteries , the tunic media of the veins, which contains smooth muscles or elastic fibers than contraction, is much thinner, resulting in compromised ability to deliver pressure. The actions of the skeletal muscle pump and the chest pump of respiration during the help of respiration in the generation of venous pressure and the return of blood to the The pressure inside the circulatory circuit as a whole is the average arterial pressure (map). This value is a function of the cardiac output (total blood pumped) and total peripheral resistance (TPR). TPR is mainly a function of the resistance of systemic circulation. The resistance to the flow generated by veins, due to their minimal ability to contract and reduce their diameter, means that the regulation of blood pressure from the veins is minimal in contrast to that of the muscle ships, mainly arterial. The latter can actively negotiate, reduce the diameter and increase the resistance and pressure. In addition, the veins can easily stretch or stretch. The ability of a vein to increase the diameter in response to a certain volume of blood also contributes to very low pressures within this segment of the circulatory system. Pooling and fainting standing or sitting for a prolonged period of time can cause a low venous return in the absence of the muscle pump, resulting in pool of venous pool (vascular) and shock. Fainting may occur, but usually baroreceptors within aortic breasts start a baroreflex, triggering the release of angiotensin II and norepinephrine and resulting vasoconstriction and cardiac frequency increases to increase the return of blood flow. Neurogenic and hypovolemic shock can also cause fainting. The smooth muscles surrounding the veins become loose and the veins fill most of the blood in the body, keeping the blood away from the brain and causing unconsciousness. Jet pilots wear pressurized clothes to help maintain their venous return and blood pressure, as high-speed maneuvers increase the venous pool in the legs. Pressure suits specifically squeeze the lower limbs, increasing venous return to the heart. This ensures that diastolics end up being maintained and that the brain will receive adequate blood, preventing loss of consciousness. consciousness.