Heart Rate Variability Chart

68–95–99.7 rule 1715d1c04c

Health in Lebanon Moreover, Lebanon, like many countries in the Middle East is experiencing an epidemiological transition with an increasingly ageing population suffering from chronic and non-communicable diseases. Since the end of the 15-year Lebanese Lebanon is a small middle-income country on the Eastern Mediterranean shore with a population of around 4 million Lebanese citizens, 1. (81. Since the end of the 15-year Lebanese Civil War in 1990, Lebanon's health indicators have significantly improved. 8 years for men) and an under-five mortality rate of 9. 5 per 1,000 live births in 2016. It is at the third stage of its demographic transition characterized by a decline in both fertility and mortality rates. 4 deaths per 100,000 individuals, with an estimate of 45% due to cardiovascular diseases, making them the leading cause of death in Lebanon. 2 million Syrian refugees, and half a million Palestinian refugees. Mortality related to non-communicable diseases is 404. 4 years for women and 78. 4 years for women and 78. 1 years (81. Lebanon has health indices that are close to those of more developed countries, with a reported life expectancy at birth of 80. 5 per 1,000 live births in 2016. 8 years for men) and an under-five mortality rate of 9 1715d1c04c

Wearable heart rate monitors for athletes were available in 1981. Improvements in technology in the late 20th and early 21st century made it possible to automate the... 1715d1c04c x 1715d1c04c 3SLS – see three-stage least squares 1715d1c04c

List of statistics articles Hazard function – redirects to Failure rate Hazard ratio Heaps' law Health care analytics Heart rate variability Heavy-tailed distribution Heckman correction == 0–9 == 1715d1c04c

The Human Rights Measurement Initiative finds that Lebanon is fulfilling 85.1% of what it should be fulfilling for the... 1715d1c04c == History == 1715d1c04c Transmitting data from a monitor to a distant monitoring station is known as telemetry or biotelemetry. 1715d1c04c

Withings Withings is known for design and innovation in connected devices, such as the first Wi-Fi scale on the market (introduced in 2009),

an FDA-cleared blood pressure monitor, a smart sleep system, and a line of automatic activity tracking watches. The BPM Core, introduced Withings (IPA:) is a French consumer electronics company headquartered in Issy-les-Moulineaux, France. It also provides B2B services for healthcare providers and researchers. allows patients to chart their blood pressure readings at home: it measures systolic and diastolic blood pressure as well as heart rate. It also has offices in Boston, Massachusetts, USA, and Hong Kong, and distributes its products worldwide 1715d1c04c

== History and etymology == 1715d1c04c Many fitness trackers are similar to pedometers, but in addition to counting steps they contain additional sensors such as accelerometers and altimeters to collect or estimate fitness and exercise information, including the speed and distance travelled, heart rate, calorie expenditure, or the duration and quality of sleep. 1715d1c04c

Pulse oximetry Peripheral oxygen saturation (SpO2) readings are typically within 2% accuracy (within 4% accuracy in 95% of cases) of the more accurate (and invasive) reading of arterial oxygen saturation (SaO2) from arterial blood gas analysis. Pleth variability index (PVI) is a measure of the variability of the perfusion index, which occurs during breathing Pulse oximetry is a noninvasive method for monitoring blood oxygen saturation. is derived manually from monitor pixels 1715d1c04c

1.96 1715d1c04c 2SLS (two-stage least squares) – redirects to instrumental variable 1715d1c04c A standard pulse oximeter passes two wavelengths of light through tissue to a photodetector. Taking advantage of the pulsate flow of arterial blood, it measures the change in absorbance over the course of a cardiac cycle, allowing it to determine the absorbance due to arterial blood alone, excluding unchanging absorbance due to venous blood, skin, bone, muscle, fat, and, in many cases, nail polish. The two wavelengths measure the quantities of bound (oxygenated) and unbound (non-oxygenated) hemoglobin, and from their ratio, the percentage of bound hemoglobin is computed. 1715d1c04c Tachycardia is a high heart rate, defined as above 100 bpm at rest. 1715d1c04c Discovered by Tillett and Francis in 1930, it was initially thought that CRP might be a pathogenic secretion since it was elevated in a variety of illnesses, including cancer. The later discovery of hepatic synthesis (made in the liver) demonstrated that it is a native protein. Initially, CRP was measured using the quellung reaction which gave a positive or a negative... 1715d1c04c

Monitoring (medicine) commonly include at least blood pressure and heart rate, and preferably also pulse oximetry and respiratory rate. Multimodal monitors that simultaneously In medicine, monitoring is the observation of a disease, condition or one or several medical parameters over time 1715d1c04c

CRP is synthesized by the liver in response to factors released by macrophages, T cells and fat cells (adipocytes). It is a member of the pentraxin family of proteins. It is not related to C-peptide (insulin) or protein C (blood coagulation). C-reactive protein was the first pattern recognition receptor (PRR) to be identified. 1715d1c04c Monitoring can be classified by the target of interest, including: 1715d1c04c 100-year flood 1715d1c04c

Poincaré plot Poincaré plots can be used to distinguish chaos from randomness by embedding a data set in a higher-dimensional state space. oscillations in heart rate variability and other non-linear dynamic systems. In the context of electrocardiography, the rate of the healthy heart is normally A Poincaré plot, named after Henri Poincaré, is a graphical representation used to visualize the relationship between consecutive data points in time series to detect patterns and irregularities in the time series, revealing information about the stability of dynamical systems, providing insights into periodic orbits, chaotic motions, and bifurcations. It is also known as a return map. It plays a role in controlling and predicting the system's long-term behavior, making it an indispensable tool for various scientific and engineering disciplines 1715d1c04c

The most common approach is transmissive pulse oximetry. In this approach, one side of a thin part of the patient's body, usually a fingertip or earlobe, is illuminated, and the photodetector is on the other side. Fingertips and earlobes have disproportionately high blood flow relative to their size, in order to... 1715d1c04c Human body temperature varies. It depends on sex, age, time of day, exertion level, health status (such as illness and menstruation), what part of the body the measurement is taken at, state of consciousness (waking, sleeping, sedated), and emotions. Body temperature is kept in the normal range by a homeostatic function known as thermoregulation, in which adjustment of temperature is triggered by the central nervous system. 1715d1c04c == Methods of measurement == 1715d1c04c The American Heart Association states the normal resting adult human heart rate is 60–100 bpm. An ultra-trained athlete may have a resting heart rate of 37–38 bpm. 1715d1c04c

Heart rate Heart rate is the frequency of the heartbeat measured by the number of contractions of the heart per minute (beats per minute or bpm). It is usually equal or close to the pulse rate measured at any peripheral point. The heart rate varies according to the body's physical needs, including the need to absorb oxygen and excrete carbon dioxide. It is also modulated by numerous factors, including genetics, physical fitness, stress or psychological status, diet, drugs, hormonal status, environment, and disease/illness, as well as the interaction between these factors. The heart rate Heart rate is the frequency of the heartbeat measured by the number of contractions of the heart per minute (beats per minute or bpm) 1715d1c04c

== Physiology == 1715d1c04c

C-reactive protein Archives of Internal Medicine C-reactive protein (CRP) is an annular (ring-shaped) pentameric protein found in blood plasma, whose circulating concentration rises in response to inflammation. Its physiological role is to bind to lysophosphatidylcholine expressed on the surface of dead or dying cells (and some types of bacteria) in order to activate the complement system via C1q. Bower JK, Lazo M, Juraschek SP, Selvin E (October 2012). It is an acute-phase protein of hepatic origin that increases following interleukin-6 secretion by macrophages and T cells. "Within-person variability in high-sensitivity C-reactive protein" 1715d1c04c

== History == 1715d1c04c It can be performed by continuously measuring certain parameters by using a medical monitor (for example, by continuously measuring vital signs by a bedside monitor), and/or by repeatedly performing medical tests (such as blood glucose monitoring with a glucose meter in people with diabetes mellitus). 1715d1c04c

Fitness tracker Medical monitoring of a patient's body temperature, heart rate, heart rate variability, brain activity, muscle motion, and other critical data can A fitness tracker or activity tracker is an electronic device that measures and collects data about an individual's movements and physical responses in order to monitor and improve the individual's health, fitness, or psychological wellness over time. hospitalization 1715d1c04c

Human body temperature 5 °F). Possibility of serious heart rhythm problems. 7–99. 28 °C (82. 4 °F) – Severe heart rhythm disturbances are likely Normal human body temperature (normothermia, euthermia) is the typical temperature range found in humans, generally given as 36. 5–37.

Very shallow breathing and slow heart rate. 5 °C (97 1715d1c04c

== Classification by target parameter == 1715d1c04c Withings was purchased by Finnish company Nokia on 26 April 2016 and became a division of Nokia known as Nokia Health. The Withings brand continued to be used until June 2017, when it was replaced by the Nokia brand. In May 2018, Éric Carreel, Withings' founder, finalized a deal to regain control and the company became independent again, under the Withings name. 1715d1c04c == A == 1715d1c04c Improvements in computing technology since the 1980s, driven by the rapid advancement of smartphones, paved the way for wearable tracker devices with integrated sensors. Frequently data such as fitness, mood, sleep, water intake, medicine usage, sexual activity, menstruation, and potential illnesses is synced with mobile apps. This has led to privacy concerns regarding how consumer information is stored and analyzed by the companies involved. 1715d1c04c Bradycardia is a low heart rate, defined as below 60 bpm at rest. When a human sleeps, a heartbeat with rates around 40–50 bpm is common and considered normal. When the heart is not beating in a regular pattern, this is referred to as a arrhythmia. Abnormalities of heart rate sometimes indicate heart disease. 1715d1c04c Given a time series of the form 1715d1c04c