# Normal Value For Potassium

Electron capture (EC) to 40Ar* followed by a gamma decay emitting a photon with an energy of 1.46 MeV at 10.3% probability be8299a0a5

Potassium spatial buffering The repolarization of neurons tends to increase potassium concentration in the extracellular matrix. If a significant rise occurs, it will reduce the concentration gradient across the neuronal membrane, resulting in depolarization. This resulting depolarization will lead to increased excitability or spontaneous firing. They are taken up at one region of the astrocyte and then distributed throughout the cytoplasm of the cell, and to other cells via astrocytic gap junctions. Other mechanisms for astrocytic potassium clearance are carrier-operated, or channel-operated potassium-chloride uptake. Astrocytes have large numbers of potassium ion channels facilitating the removal of potassium ions from the extracellular matrix.

keeps the level of extracellular potassium contents around a constant value to prevent interference with the normal propagation of an action potential Potassium spatial buffering is a mechanism for the regulation of extracellular potassium concentration by astrocytes. This keeps the level of extracellular potassium contents around a constant value to prevent interference with the normal propagation of an action potential throughout neural transmission be8299a0a5

Common side effects include vomiting, diarrhea, abdominal pain, rash, and swelling of the salivary glands. Other side effects include allergic reactions, headache, goitre, and depression. While use during pregnancy may harm the baby, its use is still recommended in radiation emergencies. Potassium iodide has the chemical formula KI. Commercially it is made by mixing potassium hydroxide with iodine. be8299a0a5

Anion gap It may be reported with the results of an electrolyte panel, which is often performed as part of a comprehensive metabolic panel. This leaves the following equation: = [Na+] ([Cl−] + [HCO− 3]) Normal AG = 8-16 mEq/L Expressed - The anion gap (AG or AGAP) is a value calculated

from the results of multiple individual medical lab tests. Therefore, omission of potassium has become widely accepted be8299a0a5

Potassium-40 248 billion years. The half-life is much shorter than the age of Earth, meaning this fraction was significantly larger earlier in Earth's history. It makes up about 117 ppmTooltip parts-per-million of natural potassium, making that mixture very weakly radioactive. 248 billion years. It makes Potassium-40 (40K) is a long lived and the main naturally occurring radioactive isotope of potassium, with a half-life of 1. Potassium-40 (40K) is a long lived and the main naturally occurring radioactive isotope of potassium, with a half-life of 1 be8299a0a5

Potassium It is found dissolved in seawater (which is 0. It is a silvery white metal that is soft enough to easily cut with a knife. The transfer of potassium ions across nerve cell membranes is necessary for normal nerve transmission; potassium deficiency and excess can each Potassium is a chemical element; it has symbol K (from Neo-Latin kalium) and atomic number 19. It was first isolated from potash, the ashes of plants, from which its name derives. In the periodic

table, potassium is one of the alkali metals, all of which have a single valence electron in the outer electron shell, which is easily removed to create an ion with a positive charge (which combines with anions to form salts). Elemental potassium reacts vigorously with water, generating sufficient heat to ignite hydrogen emitted in the reaction, and burning with a lilac-colored flame. Potassium metal reacts rapidly with atmospheric oxygen to form flaky white potassium peroxide in only seconds of exposure. In nature, potassium occurs only in ionic salts. living cells. 04% potassium by weight), and occurs in many minerals such as orthoclase, a common constituent of granites and other igneous rocks be8299a0a5

The speed at which potassium should be replaced depends on whether or not there are symptoms or abnormalities on an electrocardiogram. Potassium levels that are only slightly below the normal range can be managed with changes in the diet. Lower levels of potassium require replacement with supplements either taken by... be8299a0a5 Electron emission (β−) to 40Ca with a decay energy of 1.31 MeV at 89.6% probability be8299a0a5

Isotopes of potassium Three of those isotopes occur naturally: the two stable forms 39K (93. natural potassium in sufficient quantity that large bags of potassium chloride commercial salt substitutes can be used as a radioactive source for classroom Potassium (19K) has 25 known isotopes from 34K to 57K as well as 31K, as well as an unconfirmed report of 59K. 26%) and 41K (6. 72%), and the long-lived radioisotope 40K (0. 012%) be8299a0a5

Positron emission (β+) to 40Ar at 0.001% probability be8299a0a5 Blood test results should always be interpreted using the reference range provided by the laboratory that performed the test. be8299a0a5 Direct electron capture (EC) to the ground state of 40Ar at 0.1% probability be8299a0a5 The Reichert-Meissel value for milk ranges between 28.5 and 33. be8299a0a5 The value is named for the chemists who developed it, Emil Reichert and Emerich Meissl. be8299a0a5 Potassium-40 undergoes four different paths of radioactive decay, including all three main types of beta decay: be8299a0a5 Naturally occurring radioactive 40K decays with a half-life of 1.248×109 years. 89% of those decays are to stable 40Ca by beta decay, whilst 11% are to 40Ar by either electron capture or positron emission.

This latter decay branch has produced an isotopic abundance of argon on Earth which differs greatly from that seen in gas giants and stellar spectra. 40K has the longest known half-life for any positron-emitting nuclide. The long half-life of this primordial radioisotope is caused by a highly spin-forbidden transition: 40K has a nuclear spin of 4, while both of its decay daughters are even–even isotopes with spins of 0. be8299a0a5 It is measure of the steam volatile and water insoluble fatty acids, chiefly caprylic, capric and lauric acids, present in oil and fat. The value is named for the chemist who developed it, Eduard Polenske. be8299a0a5 Potassium iodide has been used medically since at least 1820. It is on the World Health Organization's List of Essential Medicines. Potassium iodide is available as a generic medication and over the counter. Potassium iodide is also used for the iodization of salt. be8299a0a5 == Calculation == be8299a0a5 Potassium is chemically very similar to sodium, the previous element in group 1 of the periodic table. They have a similar first ionization energy, which allows for each atom to give up its sole... be8299a0a5

Hypokalemia electrocardiogram. Potassium

levels that are only slightly below the normal range can be managed with changes in the diet. Low potassium also increases the risk of an abnormal heart rhythm, which is often too slow and can cause cardiac arrest. Lower levels of potassium require replacement Hypokalemia is a low level of potassium (K+) in the blood serum. Symptoms may include feeling tired, leg cramps, weakness, and constipation. Mild low potassium does not typically cause symptoms be8299a0a5

The concentrations are expressed in units of milliequivalents/liter (mEq/L) or in millimoles/litre (mmol/L). be8299a0a5 The anion gap is the quantity difference between cations (positively charged ions) and anions (negatively charged ions) in serum, plasma, or urine. The magnitude of this difference (i.e., "gap") in the serum is calculated to identify metabolic acidosis. If the gap is greater than normal, then high anion gap metabolic acidosis is diagnosed. be8299a0a5 This number is a useful indicator of non-fat compounds in edible fats, and is especially high in butter. be8299a0a5 == Potassium Spatial Buffering == be8299a0a5

Reichert value 1 normal hydroxide solution necessary for the neutralization of the water-

soluble volatile fatty acids distilled and filtered from 5 grams of a given saponified fat. ). The Reichert value is an indicator of how much volatile fatty acid can be extracted from a particular fat or oil through saponification. It is equal to the number of millilitres of 0. The Polenske value and Kirschner value are related numbers The Reichert value (also Reichert-Meissl number, Reichert-Meissl-Wollny value or Reichert-Meissl-Wollny number) is a value determined when examining fats and oils. The value is named for the chemists who developed it, Emil Reichert and Emerich Meissl. in butter. (The hydroxide solution used in such a titration is typically made from sodium hydroxide, potassium hydroxide, or barium hydroxide be8299a0a5

The anion gap is a calculated measure. It is computed with a formula that uses the results of several individual lab tests, each of which measures the concentration of a specific anion or cation. be8299a0a5 == Medical uses == be8299a0a5

Polenske value It is equal to the number of milliliters of 0. ). (The hydroxide solution used in such a titration is typically made from sodium hydroxide, potassium hydroxide, or

barium hydroxide. 1 normal alkali solution necessary for the neutralization of the water-insoluble volatile fatty acids distilled and filtered from 5 grams of a given saponified fat. 1 normal alkali solution necessary for the neutralization of the water-insoluble volatile fatty The Polenske value (also known as the Polenske number) is a value determined when examining fat. saponification. It is an indicator of how much volatile fatty acid can be extracted from fat through saponification. It is equal to the number of milliliters of 0 be8299a0a5

The term "anion gap" usually implies "serum anion gap", but the urine anion gap is also a clinically useful measure. be8299a0a5

Potassium iodide It is a supplement used by people with low dietary intake of iodine. It is also used for treating skin sporotrichosis and phycomycosis. It is administered orally. It is a medication used for treating hyperthyroidism, in radiation emergencies Potassium iodide (KI) is a chemical compound, medication, and dietary supplement. Potassium iodide (KI) is a chemical compound, medication, and dietary supplement. It is a medication used for treating hyperthyroidism, in radiation emergencies, and for protecting the thyroid

gland when certain types of radiopharmaceuticals are used be8299a0a5

== References == be8299a0a5 The Polenske value and Kirschner value are related numbers based on similar tests. be8299a0a5 A reference range is usually defined as the set of values 95 percent of the normal population falls within (that is, 95% prediction interval). It is determined by collecting data from vast numbers of laboratory tests. be8299a0a5 The EC decay of 40K explains the large abundance of argon (nearly 1%) in the Earth's atmosphere, as well as prevalence of 40Ar over other... be8299a0a5 Both forms of the electron capture decay release further photons, when electrons from the outer shells fall into the inner shells to replace the electron taken from there. The total energy for the decay to argon is 1.51 MeV. be8299a0a5 == References == be8299a0a5 The Reichert value and Kirschner value are related numbers based on similar tests. be8299a0a5 Glial cells, once believed to have a passive role in CNS, are active regulators of numerous functions in the brain, including clearance... be8299a0a5 == Interpretation == be8299a0a5 40K occurs in natural potassium in sufficient quantity that large

bags of potassium chloride commercial salt substitutes can be used as a radioactive source for classroom demonstrations. 40K is the largest source of natural radioactivity in healthy animals and humans, greater even than 14C. In a human body of 70 kg mass... be8299a0a5

Reference ranges for blood tests the test. Reference ranges for blood tests are studied within the field of clinical chemistry (also known as "clinical biochemistry", "chemical pathology" or "pure blood chemistry"), the area of pathology that is generally concerned with analysis of bodily fluids. A reference range is usually defined as the set of values 95 percent of the normal population falls within (that is, 95% prediction interval) Reference ranges (reference intervals) for blood tests are sets of values used by a health professional to interpret a set of medical test results from blood samples be8299a0a5

Causes of hypokalemia include vomiting, diarrhea, medications like furosemide and steroids, dialysis, diabetes insipidus, hyperaldosteronism, hypomagnesemia, and not enough intake in the diet. Normal potassium levels in humans are between 3.5 and 5.0 mmol/L (3.5 and 5.0 mEq/L) with

levels below 3.5 mmol/L defined as hypokalemia. It is classified as severe when levels are less than 2.5 mmol/L. Low levels may also be suspected based on an electrocardiogram (ECG). The opposite state is called hyperkalemia, which means a high level of potassium in the blood serum.
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