Difference Between Complex And Simple Tissue

Constriction ring syndrome Plastic surgery ranges from simple to complex depending Constriction ring syndrome (CRS) is a congenital disorder with unknown cause. It is a malformation due to intrauterine bands or rings that produce deep grooves in (most commonly distal) extremities such as fingers and toes. Because of the unknown cause there are many different, and sometimes incorrect, names. In rare cases the constriction ring can form around other parts of the fetus and cause amputation or even intrauterine death. The anatomy proximal to the site of constriction (or amputation) is developmentally normal. birth and where plastic and reconstructive surgery is considered to treat the resulting deformity 95e90e18a3

Normalized difference vegetation index identifying the simple red/infrared ratio and other spectral ratios as the "vegetation index," they eventually began to identify the difference/sum ratio formulation The normalized difference vegetation index (NDVI) is a widely used metric for quantifying the health and density of vegetation using sensor data. The spectrometric data is usually sourced from remote sensors, such as satellites. It is calculated from spectrometric data at two specific bands: red and near-infrared 95e90e18a3

CRS can be associated with other malformations, with club foot being most common. 95e90e18a3 There are three principal shapes of epithelial cell: squamous (scaly), columnar, and cuboidal. These can be arranged in a singular layer of cells as simple epithelium, either simple squamous, simple columnar, or simple cuboidal, or in layers of two or more cells deep as stratified (layered), or compound, either squamous, columnar or cuboidal. In some tissues, a layer of columnar cells may appear to be stratified due to the placement of the nuclei. This sort of tissue is called pseudostratified. All glands are made up of epithelial cells. Functions of epithelial cells include diffusion, filtration, secretion, selective absorption, germination... 95e90e18a3

Physiology of decompression Gas is inhaled at ambient pressure, and some of this gas dissolves into the blood through the alveolar walls, is circulated, and diffuses into other fluids of perfused tissues. physical damage to body tissues caused by a difference in pressure between a gas space inside, or in contact with, the body and the surrounding gas or The physiology of decompression is the aspect of physiology which is affected by exposure to large changes in ambient pressure. Inert gas continues to be taken up until the gas dissolved in the tissues is in a state of equilibrium with the gas in the lungs (see: "Saturation diving"), or the ambient pressure is reduced until the inert gases dissolved in the tissues are at a higher concentration than the equilibrium state, and start diffusing out again. It involves a complex interaction of gas solubility, partial pressures and concentration gradients, diffusion, bulk transport by perfusion, and bubble mechanics in living tissues 95e90e18a3

Decompression theory appears to follow a simple inverse exponential equation. In the case of underwater diving and compressed air work, this mostly involves ambient pressures greater than the local surface pressure, but astronauts, high altitude mountaineers, and travellers in aircraft which are not pressurised to sea level pressure, are generally exposed to ambient pressures less than standard sea level atmospheric pressure. The time it takes for a tissue to take up or release 50% of the difference in dissolved gas capacity Decompression theory is the study and modelling of the transfer of the inert gas component of breathing gases from the gas in the lungs to the tissues and back during exposure to variations in ambient pressure. In all cases, the symptoms caused by decompression occur during or within a relatively short period of hours, or occasionally days, after a significant pressure reduction 95e90e18a3

In biochemistry, it involves adding a class-specific (DNA, proteins, lipids, carbohydrates) dye to a substrate to qualify or quantify the presence of a specific compound. Staining and fluorescent tagging can serve similar purposes. Biological staining is also used to mark cells in flow cytometry, and to flag proteins or nucleic acids in gel electrophoresis. Light microscopes are used for viewing stained samples at high magnification, typically using bright-field or epi-fluorescence illumination. 95e90e18a3 == Background == 95e90e18a3 == Brief history == 95e90e18a3 The formation of gender is controversial in many scientific fields, including psychology. Specifically, researchers and theorists take different perspectives on how much of gender is due to biological, neurochemical, and evolutionary factors (nature), or is the result of culture and socialization... 95e90e18a3 == Signs and symptoms == 95e90e18a3 Adipose tissue is derived from preadipocytes and its formation appears to be controlled in part by the adipose gene. The two types of adipose tissue are white adipose tissue (WAT), which stores energy, and brown adipose tissue (BAT), which generates body heat. Adipose tissue—more specifically brown... 95e90e18a3

The metric is popular in industry because of its accuracy. It has a high correlation with the true state of vegetation on the ground. The index is easy to interpret: NDVI will be a value between -1 and 1, where values close to zero will indicate little to no vegetation, negative values are associated with non-land surfaces or water, and higher values correspond to healthy, dense vegetation. It is used in applications such as agriculture, drought monitoring, and ecosystem analysis. 95e90e18a3 During local field potential recordings, a signal is recorded using an extracellular microelectrode placed sufficiently far from individual local neurons to prevent... 95e90e18a3 Leaves vary in shape, size, texture and color, depending on... 95e90e18a3

Adipose tissue It also contains the stromal vascular fraction of cells including preadipocytes, fibroblasts, vascular endothelial cells and a variety of immune cells such as adipose tissue macrophages. Its main role is to store energy in the form of lipids, although it also cushions and insulates the body. Adipose tissue—more specifically Adipose tissue (also known as body fat or simply fat) is a loose connective tissue composed mostly of adipocytes. adipose tissue are white adipose tissue (WAT), which stores energy, and brown adipose tissue (BAT), which generates body heat 95e90e18a3

Sex differences in psychology Modern research attempts to distinguish between these causes and to analyze any ethical concerns raised. Sex differences in psychology are differences in the mental functions and behaviors of the sexes and are due to a complex interplay of biological, developmental Sex differences in psychology are differences in the mental functions and behaviors of the sexes and are due to a complex interplay of biological, developmental, and cultural factors. Differences have been found in a variety of fields such as mental health, cognitive abilities, personality, emotion, sexuality, friendship, and tendency towards aggression. Since behavior is a result of interactions between nature and nurture, researchers are interested in investigating how biology and environment interact to produce such differences, although this is often not possible. Such variation may be innate, learned, or both 95e90e18a3

Staining Stains and dyes are frequently used in histology (microscopic study of biological tissues), in cytology (microscopic study of cells),

and in the medical Staining is a technique used to enhance contrast in samples, generally at the microscopic level. Stains may be used to define biological tissues (highlighting, for example, muscle fibers or connective tissue), cell populations (classifying different blood cells), or organelles within individual cells. level. Stains and dyes are frequently used in histology (microscopic study of biological tissues), in cytology (microscopic study of cells), and in the medical fields of histopathology, hematology, and cytopathology that focus on the study and diagnoses of diseases at the microscopic level 95e90e18a3

The term "decompression" derives from the reduction in ambient pressure experienced by the organism and refers to both the reduction in pressure and the process of allowing dissolved inert gases to be eliminated from the tissues during and after this reduction in pressure. The uptake of gas by the tissues is in the dissolved state, and elimination also requires the gas to be dissolved, however a sufficient reduction in ambient pressure may cause bubble formation... 95e90e18a3 The absorption of gases in liquids depends on the solubility of the specific gas in the specific liquid, the concentration of gas (customarily expressed as partial pressure) and temperature. In the study of decompression theory, the behaviour of gases dissolved in the body tissues is investigated and modeled for variations of pressure over time. Once dissolved, distribution of the dissolved... 95e90e18a3 The precise configuration of the bands, lymphedema, and character of the amputations are not predictable and vary with each individual patient. Also, more than one extremity is usually affected, and it is rare for only one ring to present as an isolated malformation with no other manifestation of this syndrome. 95e90e18a3 The constriction of appendages by amniotic bands may result in: 95e90e18a3

Epithelium Epithelial tissues lack blood or lymph supply, but are supplied by nerves. Epithelial tissue is one of the four basic types of animal tissue, along with connective tissue, muscle tissue and nervous tissue. Epithelial (mesothelial) tissues line the outer surfaces of many internal organs, the corresponding inner surfaces of body cavities, and the inner surfaces of blood vessels. Epithelial tissue is one of the four basic types of animal tissue, along with connective tissue, muscle tissue and nervous tissue. Epithelial tissues lack blood Epithelium or epithelial tissue is a thin, continuous, protective layer of cells with little extracellular matrix. An example is the epidermis, the outermost layer of the skin 95e90e18a3

Staining is not limited to only biological materials, since it can also be used to study the structure of other... 95e90e18a3

Leaf : leaves) is a principal appendage of the stem of a vascular plant, usually borne laterally above ground and specialized for photosynthesis. The leaf is an integral part of the stem system, and most leaves are flattened and have distinct upper (adaxial) and lower (abaxial) surfaces that differ in color, hairiness, the number of stomata (pores that intake and output gases), the amount and structure of epicuticular wax, and other features. Leaves are mostly green in color due to the presence of a compound called chlorophyll, which is essential for photosynthesis as it absorbs light energy from the Sun. In most leaves, the primary photosynthetic tissue is the palisade mesophyll and is located on the upper side of the blade or lamina of the A leaf (pl. shoot system. In most leaves, the primary photosynthetic tissue is the palisade mesophyll and is located on the upper side of the blade or lamina of the leaf, but in some species, including the mature foliage of Eucalyptus, palisade mesophyll is present on both sides and the leaves are said to be isobilateral. Leaves are collectively called foliage, as in "autumn foliage", while the leaves, stem, flower, and fruit collectively form the shoot system. A leaf with lighter-colored or white patches or edges is called a variegated leaf 95e90e18a3

A number of factors combine to influence the development of sex differences, including genetics and epigenetics; differences in brain structure and function; hormones, and socialization. 95e90e18a3 Previously treated as being hormonally inert, in recent years adipose tissue has been recognized as a major endocrine organ, as it produces hormones such as leptin, estrogen, resistin, and cytokines (especially TNFα). In obesity, adipose tissue is implicated in the chronic release of pro-inflammatory markers known as adipokines, which are responsible for the development of metabolic syndrome—a constellation of diseases including type 2 diabetes, cardiovascular disease and atherosclerosis. 95e90e18a3

Local field potential g. neurons) in that tissue. g. LFP are typically recorded with a high-impedance microelectrode placed in the midst of the population of cells generating it. LFP are 'local' because they are recorded by an electrode placed nearby the generating cells. They can be recorded, for example, via a microelectrode placed in the brain of a human or animal subject, or in an in vitro brain thin slice. LFP are "extracellular" Local field potentials (LFP) are transient electrical signals generated in nerves and other tissues by the summed and synchronous electrical activity of the individual cells (e. They are potentials generated by the voltage that results from charge separation in the extracellular space, which produce a local electric field. As a result of the Inverse-square law, such electrodes can only 'see' potentials in a spatially limited radius. neurons) in that tissue. LFP are "extracellular" signals, meaning that they are generated by transient imbalances in ion concentrations in the spaces outside the cells, that result from cellular electrical activity. generated in nerves and other tissues by the summed and synchronous electrical activity of the individual cells (e 95e90e18a3