

В мозговой зоне расположены тельца Гассалья, или тимические тельца, которые представляют собой округлые слоистые структуры из скопления уплощенных веретеновидных эпителиальных клеток с крупным бледным ядром.

В органе суточных птиц тимусных телец не обнаружено. У недельных перепелов отмечено наличие единичных телец Гассалья. С возрастом количество этих структур увеличивается и к трем месяцам составляет в среднем $11,4 \pm 3,4$ единиц в поле зрения микроскопа. В период инволюционных процессов их количество уменьшается до $3,5 \pm 0,9$ штук. Размеры тимических телец варьируют от 0,8 до 3,4 мкм в органе птиц исследуемых возрастных групп.

Заключение. Наблюдается динамичное развитие тимуса перепелов в течение первых трех месяцев жизни. Оптимальный уровень развития органа отмечен у 90-суточных птиц. Затем наступает период возрастной инволюции с характерными морфологическими и морфометрическими изменениями в структурных элементах органа.

УДК 616-008.82.46

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THEORETICAL ANALYSIS OF THE PREVENTIVE EFFECT OF IONIZED MAGNESIUM ON THE BODY

Minerals are inorganic substances that help our bodies develop and function. A better way to get your macro and trace minerals is in ionized form. The ionization of minerals means that the mineral has either negative or positive charge. Minerals in ionic state carry an electric charge, which allows them to readily bind with water, resulting in their easy absorption in the body.

Ionized Magnesium is a unique process of stabilizing the magnesium ions making them 100% absorbed at the cellular level and non-laxative. Ion channels are composed of proteins that form pores through a cell membrane. The mineral ion channels that are the gateways through which minerals enter cells are only 0,4-0,5 nanometers in diameter. These specialized proteins help establish and control the voltage traveling across the cell membranes by allowing ions to flow along a particular gradient. Because 0,001 nanometer-sized minerals are absorbed directly into cells, they improve cell function immediately. The ionic charge allows to be attracted to the cells that require it. Another huge point in favor of ionized minerals is that their

available surface area is extremely large. These minerals cannot build up to toxic levels in your body.

Magnesium makes up about 0,05% of the body's weight. Minerals absorption usually refers to absorption into the bloodstream, only one percent of the magnesium in the body is found in the blood. That level is rigorously maintained at the expense of magnesium stores in the muscles and tissues.

Magnesium is a necessary cofactor used by 700-800 enzyme systems that perform vital metabolic functions in the body. The most important one is the adenosine triphosphate (ATP) system. Magnesium attaches to ATP, stabilizing it, and making it available for use. 95% energy requirements (ATP) are converted with the aid of Coenzyme Q10 (CoQ-10). CoQ-10 is a vitamin-like substance that is present in most cells, inside mitochondria. Mitochondria provide the assembly line where the body's energy is produced. In these cells, food is converted into body energy in the mitochondria with the aid of CoQ-10 and magnesium.

Magnesium controls electrical cell-to-cell communication allowing the correct amount of calcium to enter a cell to create cell contraction. Nature's calcium channel blocker is magnesium. Magnesium in the cells is kept at a concentration 10,000 times greater than that of calcium. This may be one of the hardest tasks set for magnesium because the level of calcium outside our cells can be tens of thousands of times the safe level allowed inside the cell.

Magnesium is the ion responsible for muscle relaxation. If there is a deficiency of magnesium any muscle could contract and magnesium will relax it as the body comes back into a balanced state. Magnesium helps oxygenate body muscles. Magnesium has an important role to play in preventing blood clots and keeping the blood thin - without any side effects. Magnesium in the blood is crucial and the amount is guarded by powerful feedback mechanisms so it will usually look normal unless the levels in the tissues are dangerously low.

Magnesium is necessary for the activity of an enzyme that lowers LDL (low density lipoprotein), the "bad" cholesterol; it also lowers triglycerides and raises the "good" cholesterol, HDL (high-density lipoprotein). Another magnesium-dependent enzyme converts omega-3 and omega-6 essential fatty acids into prostaglandins, which are required for heart and overall health.