

# HOW TO RECOGNIZE THE CONDITIONS OF ALKALOSIS AND ACIDOSIS?

CAN WE CONTROL THE ADVERSE EFFECTS OF THE CHRONIC MANIFESTATION OF ALKALOSIS AND ACIDOSIS? (str.79,128)

Table 19:

## ALKALINE-ACID BALANCE IN THE BODY: ALKALINATING PROCESSES ARE BALANCED BY ACID-FORMING REACTIONS AND VICE VERSA

ALKALINATING PROCESSES	ACID-FORMING PROCESSES
<p>RESPIRATORY ALKALOSIS</p> <p>High altitudes (above 1500 m), due to the low pressure of oxygen in the atmosphere, cause rapid breathing, without sufficient release of carbon dioxide, which generates <b>high levels of bicarbonate in the body</b>, but also free <b>hydrogen ions, which acidify the blood</b>.</p> <p>Our body regulates this unpleasant condition for 3-4 days, through the <b>stimulated production of hemoglobin</b>, for better oxygen supply and CO<sub>2</sub> elimination.</p>	<p>METABOLIC ACIDOSIS</p> <p><b>In respiratory alkalosis</b>, the breakdown of water and carbon dioxide in the blood and tissues to lower the pH creates <b>free oxygen radicals</b>. A process of <b>metabolic acidosis is activated</b>, which is regulated by: (p.51,63)</p> <ul style="list-style-type: none"> <li>• <b>the cells absorb the phosphates</b> needed to produce cellular energy,</li> <li>• <b>increased calcium excretion</b> (hypocalcaemia) to reduce high alkalinity,</li> <li>• <b>retention of magnesium</b> in the cells to maintain metabolism,</li> <li>• <b>slowing of kidney function to excrete acids</b>.</li> </ul>
<p>TISSUE ALKALOSIS</p> <p><b>Dehydration</b>, causes insufficient salivation and dry mouth, increases pH of the oral cavity above 7, which stimulates the development of <b>bacteria in dental plaque</b>. (p.125,126,128)</p>	<p>TISSUE ACIDOSIS / RESPIRATORY ACIDOSIS</p> <p><b>Bacteria in the oral cavity</b>, especially in the presence of simple sugars, <b>produce lactic acid</b>, which is neutralized by the alkalizing process of <b>demineralization</b> of tooth enamel (caries). This process can be regulated in a timely and natural way, by deep breathing and holding the air, to the formation of saliva. (p.74,186)</p>

The states of Alkalosis and Acidosis are a kind of "portals" through which the Destructive Energy swirls and enters our body. (p. 57-59)

Such conditions **increase the reactivity of body fluids**, disrupt intercellular energy metabolism, normal digestion in the gastrointestinal tract, energy synthesis and cellular nutrition, support the feeling of hunger and irritability. (p. 34,45,79,112,121,125,130,159,163)

RESPIRATORY ACIDOSIS / METABOLIC ALKALOSIS	METABOLIC ACIDOSIS / RESPIRATORY ALKALOSIS
<p><b>In a sedentary lifestyle, bicarbonates are generated in the body</b> due to insufficient oxygen intake and insufficient amount of carbon dioxide emitted through the respiratory system.</p> <p><b>In case of insufficient water intake</b>, some of these bicarbonates neutralize the acids in the blood. <b>In order not to increase the alkalinity of the blood</b> and to normalize the hydro-mineral balance, <b>phosphates are absorbed into the cells</b> as to synthesize energy and water. (p.45,51,129)</p> <p><b>Excess bicarbonate binds to calcium and urate from uric acid.</b> The formed compounds are deposited in the arteries, around the joints, and soft tissues, and even in the kidneys and bile, <b>in the form of crystals, stones and spines</b>, and subsequently cause functional disorders of the musculoskeletal system and increased acidity in the stomach. (p. 56-59,78,79,108,112,129,131,152)</p>	<p><b>Excessive meat intake</b> generates strong acids that are partially neutralized by the respiratory chain and require time to be completely neutralized by renal excretion of urea and creatinine. (p.168-169)</p> <p><b>Systemic retention of phosphates, urea and creatinine</b> due to toxemia and dehydration, and the accompanying urinary retention, formation of kidney stones caused by unnatural alkalizing processes, may impair renal function to neutralize acids. (p.54,57-58,150,190)</p> <p>This in turn can lead to a <b>chronic increase in blood acidity</b>, especially with the systematic intake of <b>simple sugars and fructose, whos metabolism consumes huge amounts of cellular energy (ATP)</b>, thus <b>depleting phosphorus in the blood</b>. The reaction that neutralizes this process in order to maintain the the vital pH of the blood, will lead to additional deposition of <b>urate crystals</b> around the tendons and joints, but also to a <b>deepening of the metabolic syndrome</b>. (p.42,47-48,62-63)</p>

The main diseases trihhers are not specifically hidden in impaired metabolism or alkaline-acid imbalance. In this chapter we look at the main manifestations of alkalosis and acidosis, and in the next chapter we will look in more detail at their mechanisms of impact on energy balance and immune protection. (p.127,128-130)

Systematic recurrence of psychological and dietary errors (p.33,112,128,143,149,165,190) , but also deliberate attempts to neutralize the ailments and unpleasant symptoms of mild acidosis or mild alkalosis, with the help of antacids and drugs, inevitably push the body into the opposite state. (p.35,54,57-59,86-87,192)

Therefore, it is necessary to harmonize the rhythm of our body (p.13,21,25,94,130,166,169,170) and to avoid extremes that, although mutually and in a timely manner manage to neutralize, "stretch the strings" of our body and exhaust our valuable Life energy. (p.20,29-31,35,61)

METABOLIC ALKALOSIS /  
RESPIRATORY ALKALOSIS

**Carbohydrates** from food are a major source of energy and alkalizing bicarbonates, but can also be a source of fat storage (in case of excessive intake) and synthesis of excess acids (in the absence of oxygen and slow metabolism). (p.43,45,169)

**Polysaccharides**, such as starch and pectin, supply vital substances to our beneficial lactobacilli in the intestinal flora and maintain normal neutral pH in the colon. (p.71,139)

**The intake of alkalizing agents**, such as baking soda, to reduce stomach acidity, in conditions of **metabolic acidosis** and at particularly high levels of lactic acid, has a significant negative effect, increasing the generation of free (p.60,65) oxygen radicals, lipid peroxidation of cholesterol in the blood, the production of lactates in the tissues and the generation of free hydrogen ions, which further reduce the pH in the blood.

**Lactates** are formed during the metabolism of carbohydrates, and are precursors for the synthesis of lactic acid in **alkaline conditions poor in oxygen**. (p.162)

Frequent breathing, causing **respiratory alkalosis**, stimulates the excretion of uric acid in the urine. Under conditions of metabolic acidosis (*fear, grief*), this process can stimulate the formation of urate crystals, which have the property to accumulate in the soft tissues around the joints, forming spikes. (p.12,21,27,33,63,58,150)

RESPIRATORY ACIDOSIS /  
METABOLIC ACIDOSIS /

**Excessive intake of carbohydrates** and especially simple sugars - monosaccharides, create conditions for **fermentation** in the colon, the development of pathogenic bacilli in the intestinal flora, causing anaerobic synthesis of lactic acid and its deposition in the lymph and muscle tissues. (S.29,34,45,61,82,143,165)

If such carbohydrates are systematically taken with food without consuming the energy imported with them, and this process is accompanied by: chronic stress, shock, difficulty breathing, lack of oxygen, insufficient water intake, heavy and exhausting training, the presence of liver or kidney disease, anemia, medication (such as metformin, corticosteroids), may occur a condition of **lactic acidosis** - chronically elevated levels of lactic acid in the blood. (S.46-48,54,158-159,162)

**The lactate-synthesizing enzyme stops the process of generating high levels of lactic acid only at very low pH levels.**

This means that attempts to raise the pH in the conditions of lactic acidosis, especially with **baking soda, can complicate and prolong the physical illness, with a serious risk to health and life.** (p.61,54)

In such conditions, the body's natural response is **to increase and retain uric acid in the blood**, which gradually neutralizes strong acids and aids in the transfer of oxygen to the tissues until the lactic acid synthesis is gradually stopped and the pH in the blood is balanced. (p.54,64-65,127)

ADVERSE CONSEQUENCES OF CHRONIC ALKALOSIS	ADVERSE CONSEQUENCES OF CHRONIC ACIDOSIS
<p><b>The increased phosphate content in the blood due to (p.51,54,74,129):</b></p> <ul style="list-style-type: none"> <li>• systemically high amounts of <b>bicarbonate intake</b>,</li> <li>• <b>calcium intake</b> for prevention of osteoporosis,</li> <li>• <b>insufficient intake</b> of magnesium and water,</li> <li>• <b>accelerated breathing</b> due to lack of oxygen and insufficient release of carbon dioxide through the respiratory chain,</li> <li>• regular intake of <b>diuretics</b>,</li> </ul> <p><b>reduces calcium in the blood, raises blood pressure and may cause:</b></p> <ul style="list-style-type: none"> <li>• gastrointestinal eating disorders due to</li> <li>• changes in pH balance.</li> <li>• generation of free radicals and toxins in tissues (peroxides, malondialdehyde).</li> <li>• development of atherosclerosis and cardiovascular diseases;</li> <li>• impairment of kidney function to excrete acids (kidney stones);</li> <li>• impaired liver function to break down fat (gallstones);</li> <li>• development of arthritis (osteoporosis, gout);</li> <li>• degenerative processes in the epidermis:</li> <li>• wrinkles due to dehydration,</li> <li>• cellulite, due to the phosphate "encapsulation" of fat cells and the retention of waste fluids and peroxides in them.</li> </ul>	<p><b>Daily and excessive intake of food that generates high amounts of acids in the body (without sufficient intake of fresh vegetables), such as:</b></p> <ul style="list-style-type: none"> <li>• simple sugars, sweetened and carbonated drinks, alcohol,</li> <li>• meat, delicacies, pate, eggs,</li> <li>• fresh milk, yellow cheese and other fatty cheeses,</li> <li>• sweet fruits, fructose, pasta,</li> </ul> <p><b>in a sedentary or exhausting lifestyle, can cause chronic acidosis, leading to: (p.55,57-58,127,160,169)</b></p> <ul style="list-style-type: none"> <li>• difficulty in the liver to absorb carbohydrates and fats, and hence their accumulation in the blood such as cholesterol and triglycerides;</li> <li>• insulin resistance due to high levels of incoming sugars and glucose deficiency due to liver weakness and damaged insulin receptors;</li> <li>• lymphatic stagnation due to the formation of mucus from lactic acid;</li> <li>• overweight due to a constant feeling of hunger and storage of fat from undigested sugars;</li> <li>• diabetes due to impaired insulin receptors and depletion of insulin, which breaks down sugars for glucose synthesis;</li> <li>• weakening of the immune system due to increased cortisol and acidity, frequent inflammatory processes, especially of the respiratory tract;</li> <li>• inflammatory and destructive processes in the epidermis (acne, stretch marks, breakdown of collagen fibers and elastin).</li> </ul>