## **INTERNAL HEALTH: A Chiropractic Specialty**

### Sympathetic Dominance, Parasympathetic Weakness

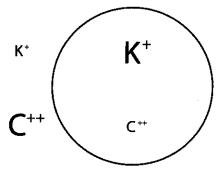
by Howard F. Loomis, Jr., D.C., F.I.A.C.A.

HIS MONTH, I BEGIN A SERIES OF 24 ARTICLES EACH DESIGNED to highlight a set of symptoms that collectively point at a specific visceral problem that is perpetuating muscle contractions, loss of joint range of motion, and reoccurring structural misalignments that have become chronic and defy permanent correction. It is exactly these problems that cause patients to seek alternatives to continuing chiropractic care. I believe our profession must, in addition to specializing in structural disorders, begin identifying these underlying visceral problems and specialize in restoring normal function before disease entities can be identified.

Throughout 2010, my articles identified a series of tests for screening structural problems that may have an underlying visceral cause. I ended 2010 by discussing spinal flexibility tests and then began last month discussing the effects of sympathetic and parasympathetic stimulation. That leads me to this month's article.

The effects of autonomic stimulation are well known and possible causes easily recognized. But what is often overlooked is the possibility that, while the central nervous system may be calling for increased sympathetic activity on the part of one or more organs, the organ or tissue may not be able to respond adequately due to a relative potassium deficiency. Let's examine what is required nutritionally for organs to respond appropriately to autonomic stimulation. I'll discuss sympathetic dominance this month and parasympathetic dominance next month.

Just as an antagonistic relationship exists between H+ (acid) and OH- (alkaline), so does an antagonism exist between potassium and calcium within the cells. The ability or inability of the organ/tissue to respond appropriately to autonomic stimulation rests on the balance between those minerals. Normally, the concentration of calcium ions is higher in the extracellular fluids, while the concentration of potassium ions is higher within the cells.



Adequate potassium within the cells is necessary for the cell to respond appropriately to parasympathetic stimulation.

 A diet with adequate alkaline minerals, provided by fresh fruits and vegetables, is needed to supply those minerals including potassium.

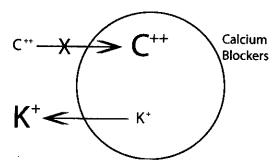
 A diet high in simple sugars depletes alkaline minerals and is largely responsible for the potassium deficiencies seen in our offices.

The symptoms of a potassium deficiency are stiff sore joints, constipation, inability to concentrate or think clearly, and cardiac arrhythmias. Also sodium is, of course, an alkaline mineral whose ions are needed in the extracellular fluid. While the body produces aldosterone and vasopressin to maintain sodium, the dietary stress placed on the body can still produce a mild deficiency. The symptoms of a mild sodium deficiency are almost insignificant, but do result in movement of potassium out of the cell into the extracellular fluid to maintain homeostasis. This causes a compensatory movement of calcium into the cells.

While all of this may seem inconsequential in a structural practice, it does result in an inability to respond appropriately to parasympathetic stimulation with an apparent sympathetic dominance and the symptoms of Fright-Fight-Flight are well documented. Every day, we see patients who are irritable and argumentative, or cannot adequately tolerate stress.

Let's carry that scenario just a little further into a patient's life and acknowledge the need for Chiropractic to become recognized as the profession that restores normal function and maintains health.

During sympathetic dominance, there is an increase of intracellular calcium accompanied by a deficiency of intracellular potassium. Excessive sympathetic stimulation increases the heart rate and force of contraction, as well as constricting blood vessels and elevating blood pressure. Ultimately, this results in heart disease. Pharmaceutically, calcium channel blockers are used to blunt the sympathetic nervous system and slow the progression of congestive heart failure.



A prudent nutritional approach would be early recognition of the symptoms of potassium deficiency and sympathetic dominance as seen with:

- The appearance of stiff sore joints and constipation accompanied by the muscle contractions, loss of joint range of motion
- The structural misalignments associated with the various

#### NUTRITION

visceral dysfunctions.

In addition to chiropractic care, dietary modification should be suggested by increasing the ingestion and digestion of foods high in alkaline minerals, such as fresh fruits and vegetables and reducing the consumption of simple sugars.

Let's examine what is required nutritionally for organs to respond appropriately to autonomic stimulation.

The following is a list of symptoms associated with a deficiency of alkaline minerals that causes the body to struggle with maintaining homeostasis in the extracellular fluids. Obviously this stress, if long continued, results in necessary compensations and the appearance of chronic degenerative conditions. How many of your patients do you recognize from the following list of symptoms related to increased dietary acidity?

#### SYMPTOMS OF EXCESSIVE DIETARY ACIDITY

DIET

Avoids or craves simple

carbohydrates

Arrhythmias

CIRCULATION

High Blood and Pulse

Pressure Cardiac

Cervical Sympathetic

Chain and T1 to T6

RESPIRATION SYM

SYMPTOMS OF SUFFOCATION

Cervical Sympathetic

SUFFOCATION Chain and Asthma T1 to T7

Dislike for closed rooms

DIGESTION

Inadequate digestion in T4 to T9

the duodenum/jejunum

Loss of normal thoracic kyphosis

SPASTICITY

Esophageal, pyloric, and

spastic colon

ABSORPTION

Poor absorption of

T5 to T9

nutrients related to inadequate sodium availability

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URINARY ELIMINATION Kidney stress Difficult urination T10 to T11 T12 to L2

BOWEL ELIMINATION Tendency to constipation L1 to L3 (sucrose). Tendency to

diarrhea (maltose &

lactose)

NERVOUS SYSTEM Inability to relax HYPERIRRITABILITY

Road rage Memory lapses NEURASTHENIA Startle easily



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