

January 27, 2002

The salt of the earth

In the last several weeks, we discussed one of the biggest medical problems of today -- **OBESITY**. I wrote how it came about with the survival of the fittest, not the fittest. Other factors include the predilection to certain condiments and most recently, the curse of salt. This week, we will analyze the consumption of food, which was from animals (the hunter in us) and plants (the gatherer in us).

Today, we consume minimal quantities of vegetables and fruits and, frequently, when we do, potassium is cooked out of these in their preparation, unless we eat them raw. The net result is that we have far too little potassium in our diet,

which makes our body crave something salty. In the sense of taste, potassium is salty, although more bitter initially than common table salt. We, therefore, gratify this craving for potassium with salt.

Somehow, in our early cultures, if potassium chloride were available as common salt (sodium chloride), we would not have this problem of consuming too much salt. Therefore, humans started using salt as mentioned in my first article, not just for the preservation of food, but to satisfy their need for potassium.

It is the extra sodium that our kidneys try hard to eliminate and in yesteryear, when we worked hard instead of hardly working, salt would be lost through our skin. Today there is little sweat and the brunt of salt excretion falls to the kidneys. In many cases, the kidneys cannot keep up with the elimination of salt, and, therefore, the extra salt causes not only fluid retention with weight gain, but such diseases as hypertension, heart failure and, yes, prema-

ture aging.

Doctors do order the serum electrolytes (sodium and potassium levels), which, although, very poorly, give an indication of how much sodium and potassium is actually in our body. Potassium is an intracellular mineral and is only slightly reflected in the serum. True, there is a correlation; the lower the serum potassium in general, the less there is in the cells. On the other hand, the sodium, which is mostly an extracellular mineral, does give less than its body content because it is the main mineral that holds onto water. Thus, sodium is more of a reflection of hydration. That is, the more sodium we see in the serum, the less water the individual has in his system and vice versa. Perhaps, a better analysis would be a radioactive sodium study and a red blood cell potassium level. However, these are research tests and are not readily done.

Next week we will discuss the solution to this dilution with Coach K (the symbol of potassium) to the rescue.



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