Calcification and Aging: ***Simple Measures Early On May Have Tremendous Impact in Old Age***

A recent article in the New Yorker magazine by Atul Gawande entitled *The Way We Age Now: Medicine has increased the ranks of the elderly. Can it make old age any easier?* provides insight into the aging process and somewhat rebukes genetic or programmed senescence. Gawande references James Vaupel, of the Max Planck Institute for Demographic Research, in Rostock, Germany. Vaupel notes that "only six per cent of how long you'll live, compared with the average, is explained by your parents' longevity; by contrast, up to ninety percent of how tall you are, compared with the average, is explained by your parents' height. Even genetically identical twins vary widely in life span: the typical gap is more than fifteen years."

Atul Gawabne discusses the concepts formulated by Leonid Gavrilov, a researcher at the University of Chicago, [wherein he] argues that human beings fail the way all complex systems fail: randomly and gradually. Gavrilov compares the human body to a powerplant with a myriad of complex functions that all have back-up systems. When damage is done, these back-up systems kick-in and allow the body to keep functioning, even while more damage accumulates. For instance,

> "The backups may not be as efficient as the first-line components, but they allow the machine to keep going even as damage accumulates. Gavrilov argues that, within the parameters established by our genes, that's exactly how human beings appear to work. We have an extra kidney, an extra lung, an extra gonad, extra teeth. The DNA in our cells is frequently damaged under routine conditions, but our cells have a number of DNA repair systems. If a key gene is permanently damaged, there are usually extra copies of the gene nearby. And, if the entire cell dies, other cells can fill in."

As the defects and damage accumulate over time, the condition of "frailty" is eventually realized.

> "It happens to power plants, cars, and large organizations. And it happens to us: eventually, one too many joints are damaged, one too many arteries calcify. There are no more backups. We wear down until we can't wear down anymore."

Little by little the medical community is recognizing that soft tissue calcification is directly associated with aging and can be controlled. Gawande describes this condition as follows:

> "Even as our bones and teeth soften, the rest of our body hardens. Blood vessels, joints, the muscle and valves of the heart, and even the lungs pick up substantial deposits of calcium and turn stiff. Under a microscope, the vessels and soft tissues display the same form of calcium that you find in bone. When you reach inside an elderly patient during surgery, the aorta and other major vessels often feel crunchy under your fingers. A recent study has found that loss of bone density may be an even better predictor of death from atherosclerotic disease than cholesterol levels. As we age, it's as if the calcium flows out of our skeletons and into our tissues.

> To maintain the same volume of blood flow through narrowed and stiffened blood vessels, the heart has to generate increased pressure. As a result, more than half of us develop hypertension by the age of sixty-five. The heart becomes thicker-walled from having to pump against the pressure, and less able to respond to the demands of exertion. The peak output of the heart decreases steadily from the age of thirty. People become gradually less able to run as far or as fast as they used to, or to climb a flight of stairs without becoming short of breath."

Gaining control of your health, as early as possible, seems to be the key to graceful aging. You can't control your genes, however you can take active steps to reduce physical and emotional stress, reduce exposure to toxins, and give your body the best possible nutrition and supplements available. Calci-CLEAR provides all of the bone and heart healthy ingredients required for healthy living plus, active cleansing ingredients that help to remove harmful metals and calcium crystals. It's the first step to calcium crystal detoxification and mineral rebalancing.