

Tissue Mineral Test (Lowenberg Test)

One of the strongest indicators of tissue calcium deficiency is muscle cramping at rest. This is a means for checking the tissue calcium stores of an individual suspected to have a tissue calcium deficiency. If a deficiency is confirmed, various forms of calcium and its co-factors will be tested orally in order to determine which specific forms of nutrients are needed to improve tissue calcium status.

Caution: Do not use this test if peripheral vascular disease is present or suspected. In elderly or frail patients, do not exceed 180.

Procedure

Place a standard blood pressure cuff around the patient's calf muscle. Instruct the patient to let you know when they feel the ONSET of cramping pain.

A muscle withstanding 200 millimeters of mercury is considered to be of sufficient calcium stores. A patient who has cramping prior to 200 mmHg is considered to be deficient in tissue calcium. The optimal tissue calcium level is considered to be 240 mmHg or more.

If a deficiency is indicated, have the patient taste the various forms of calcium (30 seconds, ideally) until the pain threshold is appropriately increased. In many cases a co-factor may have to be used in addition to a calcium source.

Calcium and Mineral Sources

Ca/Mg Zyme
 Ca/Mg Plus
 Bio CMP

Osteo-B Plus
 Multi Mins
 Ca-Zyme

Mg-Zyme
 Super Phosphozyme
 K-Zyme

Co-Factors

Digestion

Hydro-Zyme
 HCL-Plus
 Betaine Plus HP

Essential Fatty Acids

Flax Seed Oil Caps
 Black Currant Seed Oil
 Biomega-3
 Mixed EFA's

Hormonal

Equi-Fem
 Cytozyme-O
 Cytozyme-Orchic
 Cytozyme-M
 Cytozyme-F
 Neonatal Multi-Gland
 Cytozyme-AD
 Cytozyme-PT/HPT

Thyrostim
 GTA
 Meda Stim

Other Factors

Bio-D-Mulsion
 Chlorocaps
 Bio-Ae-Mulsion
 Liquid Iodine

Note: the majority of people will respond to calcium and/or the cofactors listed above however, if necessary consider the following:

Kidneys

Cytozyme-KD
 Renal Plus
 Argizyme

Oxygenation

Ginko Biloba
 OOrganic-15
 BioProtect

Hydration

Water
 Water & Electrolytes

Vitamin E

E-Mulsion 200
 Bio-E-Mulsion Forte