

Chelation Therapy

**An information sheet from the Kentucky Council Against Health Fraud
www.kcahf.org**

Overview

An intravenous infusion of the chemical EDTA is used to bind certain metal ions so that they can be eliminated from the body. There is a legitimate medical usage of the technique for the treatment of certain types of heavy metal poisoning and for Wilson's disease (where there is excess copper storage). However, some practitioners of unconventional medical methods also advocate the procedure for a wide range of conditions. Two rationales have been proposed: 1. The EDTA removes calcium ions from atherosclerotic plaques, resulting in breakdown of the plaques, and thus can be used for treatment of heart disease and circulatory problems. 2. The EDTA removes metals which can cause the production of free radicals, thus preventing oxidative damage leading to atherosclerosis and other problems.

Scientific assessment

Other than the conventional medical uses noted above, *chelation therapy is without experimental support*. The first rationale is inconsistent with current understanding of atherosclerosis. It does not make sense from the standpoint of biochemistry, since calcium levels in the blood are carefully controlled, and EDTA cannot simply remove "bad" calcium. The second rationale also does not make sense. Most metals in the body are bound to proteins and would not be affected by EDTA. Formation of free radicals is a normal consequence of the body using oxygen; we could not remove the metals which form these free radicals without destroying the enzymes necessary for life.

Although chelation therapy advocates point to clinical studies in its support, these are not well-performed, carefully controlled studies. The most thorough studies of chelation therapy *show that it does not work*. Some patients may feel better after chelation therapy, but this may be due to the placebo effect, or to changes in diet and exercise which they have also undergone.

In 1998, the Federal Trade Commission reached an agreement with the leading chelation therapy group. The chelationist organization agreed to stop making "unsubstantiated and false advertising claims" about the effectiveness of chelation therapy for removal of atherosclerotic plaque.

There are many potential hazards of chelation therapy, including possible bone loss due to removal of calcium from the body.

For further information, see:

<http://www.quackwatch.com/01QuackeryRelatedTopics/chelation.html>

Recommendations

We recommend against the use of chelation therapy (except for standard medical treatments of heavy metal poisoning and Wilson's disease). We also urge care when consulting practitioners who employ or recommend this method, since they may also advocate other procedures which are not supported by scientific evidence.

Recommendations of KCAHF are based on our assessments of the scientific literature concerning unconventional approaches to health care. For specific recommendations concerning your medical condition, consult your physician.

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10/02