



High-Dose Vitamin C (PDQ®)—Health Professional Version

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Overview

This cancer information summary provides an overview of the use of high-dose vitamin C (also known as ascorbate or L-ascorbic acid) as a treatment for people with cancer. This summary includes a brief history of early clinical trials of high-dose vitamin C; reviews of laboratory, animal, and human studies; and current clinical trials.

This summary contains the following key information:

- Vitamin C is an essential nutrient with redox functions at normal physiologic concentrations.
- High-dose vitamin C has been studied as a treatment for cancer patients since the 1970s.
- Laboratory studies have reported that high-dose vitamin C has redox properties and decreased cell proliferation in prostate, pancreatic, hepatocellular, colon, mesothelioma, and neuroblastoma cell lines.
- Two studies of high-dose vitamin C in cancer patients reported improved quality of life and decreases in cancer-related side effects.
- Studies of vitamin C combined with other drugs in animal models have shown mixed results.
- Intravenous vitamin C has been generally well tolerated in clinical trials.

Many of the medical and scientific terms used in this summary are hypertext linked (at first use in each section) to the [NCI Dictionary of Cancer Terms](#), which is oriented toward nonexperts. When a linked term is clicked, a definition will appear in a separate window.

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