

Thomas Levy, M.D., J.D.

Vitamin C, Electrons, Toxins, and Disease

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a talk given for

[Smart Life Forum](#)
Los Altos, CA

Watch the video: [Part 1](#) and [Part 2](#)

- A Theory of Life
 - Albert Szent-Gyorgi, Nobel Laureate
 - Electron flow: High Flow→Health, Low Flow→Illness (Szent-Gyorgyi, 1980)
 - Antioxidant and Prooxidant Effects (Gutteridge and Halliwell, 1994)
- Prominent Antioxidants
 - Vitamin C (Frei et al., 1989; Frei et al., 1990)
 - Vitamin E (Huang et al., 2002)
 - Vitamin A (β-carotene) (Ito et al., 2002)
 - N-acetyl cysteine (Watanabe et al., 2002)
 - Alpha lipoic acid (Arivazhagan et al., 2002)
 - Silymarin and silibinin (Singh et al., 2002)
 - Coenzyme Q10 (Kwong et al., 2002)
 - Uric acid (Waring et al., 2001)
 - Glutathione (Mytilineou et al., 2002)
 - Electrical and Magnetic fields? (Blank and Goodman, 2001; Kuperman, 2001; Ligabue et al., 2002)
- Infections
 - Strong promoters of oxidation (tissue breakdown and degeneration)
 1. Increased laboratory evidence of oxidative stress (Jain et al., 2002)
 2. Decreased antioxidant levels (antioxidant vitamins, etc.) (Sculley and Langley-Evans, 2002)
 3. Scurvy, acidosis (Ramar et al., 1993; Jacobi, 2002)
 - Associated with and promoting inflammation (Nedrud et al., 2002)
 - Associated with and promoting local and systemic toxicity

1. Directly (exotoxins and endotoxins) (Humar et al., 2002; Nyakundi et al., 2002)
 2. Indirectly (promoting the toxicity of preexisting toxins) (MacDonald et al., 1984; Starec et al., 1997; Labib et al., 2002)
- Toxins
 - Toxins are prooxidant (increased lipid peroxidation, oxidative stress, etc.) (Fiorentini et al., 1999; Victor and de la Fuente, 2002)
 - Toxins consume vitamin C and other antioxidants
 - Toxins can produce scurvy when vitamin C not replenished
 - Infections, Toxins, and Vitamin C
 - Virulent infections and potent toxins can acutely produce scurvy
 1. Many infections and toxin exposures can ultimately kill by acute scurvy complications (McCormick, 1951)
 2. All infections and toxins produce localized or systemic vitamin C deficiency; additive or synergistic
 3. Vitamin C should always be supplemented in any infection and toxin exposure, since the induced vitamin C deficiency will automatically reduce the defenses of the host to deal with the condition (Holmes et al., 1939)
 - Dental Infections and Toxins
 - Periodontal disease (infectious and toxic) (Geerts et al., 2002)
 - Root canal treated teeth (infectious and toxic) (Dahlen and Bergenholtz, 1980; Horiba et al., 1991; Alves et al., 1998)
 - Dental implants (toxic, possibly infectious) (Zablotsky et al., 1992)
 - Biologically incompatible dental materials (toxic, promoting secondary infectious conditions but not directly infectious)
 - Cavitations (toxic; low-grade infectious) (Wannfors and Hammarstrom, 1985; Harris, 1986; Segall and del Rio, 1991)
 - Abscesses (infectious, highly toxic) (Weber et al., 1993)
 - Teeth cleaning (infectious and toxic; degree depending upon extent of underlying periodontal disease) (Asikainen and Alaluusua, 1993)
 - Vitamin C and Infections
 - Absolute virucide (Klenner, 1951; Belfield and Stone, 1975)
 - Strongly microbicidal in general (Klenner, 1953)
 - Augments other traditional antimicrobial agents, although usually an acceptable monotherapy (Rawal, 1978)
 - Documented record of success
 1. Polio (Klenner, 1949)
 2. Hepatitis (Dalton, 1962; Klenner, 1974)
 3. Measles (Klenner, 1953)
 4. Mumps (Klenner, 1949)
 5. Encephalitis (Klenner, 1960 & 1971)
 6. Mononucleosis (Dalton, 1962)
 7. Viral pneumonia (Klenner, 1948)
 8. Diphtheria (Klenner, 1971)
 9. Many other infections
 - Vitamin C and Toxins [last slide of [Part 1](#), continued in [Part 2](#)]

- Ideal Antitoxin
- Works well alone or with other antitoxic agents
- Documented record of success
 1. Tetanus (infectious and toxic) (Klenner, 1954; Dey, 1966)
 2. Carbon monoxide overdose (Klenner, 1971)
 3. Mushroom poisoning (Laing, 1984)
 4. Snakebite (Smith, 1988)
 5. Barbiturate overdose (Kao et al., 1965; Klenner, 1971)
 6. Lead and other heavy metal poisoning (Pillemer et al., 1940; Sohler et al., 1977)
 7. Pesticides (Klenner, 1971)
 8. Many other toxic poisonings
- The Proper Administration of Vitamin C
 - Dose
 - Route
 - Rate
 - Frequency
 - Duration
 - Type
 - Adjunct therapies
- The Safety of Vitamin C
 - Unparalleled track record (Hanck, 1982)
 - Reduces kidney stone incidence and helps resolves existing stones (Gerster, 1997; Simon and Hudes, 1999)
 - Precautions with preexisting kidney disease
 - Organ transplants (theoretical) (Slakey et al., 1993)
 - Rebound (Tsao and Salimi, 1984)
- A Vitamin C Administration Protocol
 - Intravenous
 1. 35,000 to 50,000 mg of vitamin C as sodium ascorbate or ascorbic acid
 2. Buffered with sodium bicarbonate for ascorbic acid
 3. 500 cc of sterile water for injection
 4. Remove 100 cc to allow for addition of vitamin C (100 cc)
 5. Nothing else needed!
 6. Given over 1 to 4 hours
 - Oral
 1. Usually 6,000 to 12,000 mg daily
 2. Determine by bowel tolerance
 3. Give in divided doses
 4. Sodium ascorbate; no calcium or mineral ascorbates

- 5. Ascorbic acid OK, but more digestive problems (acid stomach)
- [End of talk - below are points made in extended form of lecture elsewhere]
- Legal Issues
 - Accepted standards of practice
 - Negligence unnecessary if targeted
 - Rounding up litigants
 - VIDEO INFORMED CONSENTS!!
 - Work with a physician if possible to prescribe for and follow-up with patients (better legal protection)
 - Develop uniform “alternative” approaches that are organization-endorsed
 - The only way to combat an “accepted standard of practice” is to gradually develop a “new” approach supported by a large enough body of traditionally trained practitioners (maintain traditional continuing education credits as well).
 - Avoid any therapy for which you charge that cannot be supported with hard scientific data, such as:
 1. Kinesiology
 2. Sanum remedies (especially in the treatment of infectious and/or toxic conditions)
 3. Homeopathy
 4. Others (many)
 - Don't paint a target with a bull's-eye on your back!
 - It doesn't matter whether something works if you cannot offer reasonable supporting scientific data, ultimately in a court of law.