

High Dose Vitamin C for Cancer - The Struggle with "Non-Evidence-Based" Medical Practice

By Dr. Raymond CF Yuen
Orthomolecular Medicine News Service

Complete References



1. Yuen RCF, Glenda CSL, Meng LK. (2016) Effects of High Doses of Vitamin C on Cancer Patients in Singapore: Nine Cases. *Integr Cancer Ther* 15:197-204. <https://pubmed.ncbi.nlm.nih.gov/26679971>
2. Yuen RCF. (2021) Vitamin C - The Remarkable Story of Controversy. In: Shiu Y Tsao, ed. *Bridging the Gap: In This Era of Cancer Immunotherapy*, Nova Medicine and Health, Oncology; 2021, p. 59-99. ISBN: 9781536199000
3. Yuen RCF. (2021) The Missing Link In Cancer Treatment: High Dose Vitamin C. In: Tsao SY, ed. *Bridging the Gap: In This Era of Cancer Immunotherapy*, Nova Medicine and Health, Oncology; 2021, p. 101-186.
4. Lv H, Wang C, Fang T, et al. (2018) Vitamin C preferentially kills cancer stem cells in hepatocellular carcinoma via SVCT-2. *NPJ Precis Oncol* 2:1. <https://pubmed.ncbi.nlm.nih.gov/29872720>
5. Mastrangelo M, Massai L, Fioritoni G, Lo Coco F. (2017) Vitamin C Against Cancer, *InTech*. <https://doi.org/10.5772/intechopen.68746>
6. Vissers MCMM, Das AB. (2018) Potential Mechanisms of Action for Vitamin C in Cancer: Reviewing the Evidence. *Front Physiol* 9:809. <https://pubmed.ncbi.nlm.nih.gov/30018566>

High Dose Vitamin C for Cancer - The Struggle with "Non-Evidence-Based" Medical Practice

7. Klimant E, Wright H, Rubin D, Seely D, Markman M. (2018) Intravenous vitamin C in the supportive care of cancer patients: a review and rational approach. *Curr Oncol* 25:139-148. <https://pubmed.ncbi.nlm.nih.gov/29719430>
8. Vollbracht C, Schneider B, Leendert V, et al. (2011) Intravenous vitamin C administration improves quality of life in breast cancer patients during chemo-/radiotherapy and aftercare: results of a retrospective, multicentre, epidemiological cohort study in Germany. *In Vivo* 25:983-990. <https://pubmed.ncbi.nlm.nih.gov/22021693>
9. Yuen RCF, Tsao SY. (2021) High Dose Intravenous Vitamin C and Radiotherapy Reversing Vocal Cord Palsy Caused by Lung Cancer: A Case Report. In: *Bridging the Gap: In This Era of Cancer Immunotherapy*, Nova Medicine and Health, Oncology; 2021, p. 180-186.
10. Satheesh NJ, Samuel SM, Büsselberg D. (2020) Combination therapy with vitamin C could eradicate cancer stem cells. *Biomolecules* 10:79. <https://pubmed.ncbi.nlm.nih.gov/31947879>.
11. Ngo B, VanRiper JM, Cantley LC, Yun J. (2019) Targeting cancer vulnerabilities with high-dose vitamin C. *Nat Rev Cancer* 19:271-282. <https://pubmed.ncbi.nlm.nih.gov/30967651>.
12. Carr AC, Vissers MCM, Cook J. (2014) Parenteral vitamin C for palliative care of terminal cancer patients. *NZ Med J* 127:84-86. <https://pubmed.ncbi.nlm.nih.gov/24997468>
13. Shiu Y Tsao. (2021) *Bridging the Gap: In This Era of Cancer Immunotherapy*. Nova Medicine and Health, Oncology; 2021.
14. Magrí A, Germano G, Lorenzato A, et al. (2020) High-dose vitamin C enhances cancer immunotherapy. *Sci Transl Med* 12:eaay8707. <https://pubmed.ncbi.nlm.nih.gov/32102933>.
15. Levy TE. (2011) *Primal Panacea*. MedFox Pub. ISBN-13?: ? 978-0983772804
16. Carr AC, Cook J. (2018) Intravenous Vitamin C for Cancer Therapy - Identifying the Current Gaps in Our Knowledge. *Front Physiol* 9:1182. <https://pubmed.ncbi.nlm.nih.gov/30190680>
17. Yuen RCF, Stephanie LA, Tin Wei Y. (2018) High-Dose Vitamin C Helps Prevent Recurrence of Stage IV Ovarian Cancer: A Case Report. *J Orthomol Med* 2018;33:4. <https://isom.ca/article/high-dose-vitamin-c-helps-prevent-recurrence-stage-iv-ovarian-cancer-case-report>
18. Cantley L, Yun J. (2020) Intravenous High-Dose Vitamin C in Cancer Therapy - National Cancer Institute. *Natl Cancer Inst*. <https://www.cancer.gov/research/key-initiatives/ras/ras-central/blog/2020/yun-cantley-vitamin-c>

High Dose Vitamin C for Cancer - The Struggle with "Non-Evidence-Based" Medical Practice

19. Yuen RCF, Tsao S. (2021) Embracing cancer immunotherapy with vital micronutrients. *World J Clin Oncol* 12:712-724. <https://doi.org/10.5306/wjco.v12.i9.712>
20. Yeom CH, Jung GC, Song KJ. (2007) Changes of terminal cancer patients' health-related quality of life after high dose vitamin C administration. *J Korean Med Sci* 22:7-11. <https://pubmed.ncbi.nlm.nih.gov/17297243>
21. Zasowska-Nowak A, Nowak PJ, Cialkowska-Rysz A. (2021) High-Dose Vitamin C in Advanced-Stage Cancer Patients. *Nutrients* 13:735. <https://pubmed.ncbi.nlm.nih.gov/33652579>
22. Schirmmacher V. (2019) From chemotherapy to biological therapy: A review of novel concepts to reduce the side effects of systemic cancer treatment (Review). *Int J Oncol* 54:407-419. <https://pubmed.ncbi.nlm.nih.gov/30570109>
23. Saiyed MM, Ong PS, Chew L. (2017) Off-label drug use in oncology: a systematic review of literature. *J Clin Pharm Ther* 42:251-258. <https://pubmed.ncbi.nlm.nih.gov/28164359>
24. Eaton AA, Sima CS, Panageas KS. (2016) Prevalence and Safety of Off-Label Use of Chemotherapeutic Agents in Older Patients With Breast Cancer: Estimates From SEER-Medicare Data. *J Natl Compr Cancer Netw* 14:57-65. <https://pubmed.ncbi.nlm.nih.gov/26733555>
25. US National Cancer Institute. Off-Label Drug Use in Cancer. <https://www.cancer.gov/about-cancer/treatment/drugs/off-label>
26. Shien MHY, Yuen RCF. (2019) Off -Label Cancer Prescription: A Paradox to Evidence-Based Medicine. *J Orthomol Med* 34:1-23. <https://isom.ca/article/off-label-cancer-prescription-a-paradox-to-evidence-based-medicine>
27. Cameron E, Campbell A. (1974) The orthomolecular treatment of cancer II. Clinical trial of high-dose ascorbic acid supplements in advanced human cancer. *Chem Biol Interact* 9:285-315. <https://pubmed.ncbi.nlm.nih.gov/4430016>
28. Prier M, Carr A, Baillie N. (2018) No Reported Renal Stones with Intravenous Vitamin C Administration: A Prospective Case Series Study. *Antioxidants* 7:68. <https://pubmed.ncbi.nlm.nih.gov/29883396>
29. Nauman G, Gray J, Parkinson R, Levine M, Paller C. (2018) Systematic Review of Intravenous Ascorbate in Cancer Clinical Trials. *Antioxidants* 7:89. <https://pubmed.ncbi.nlm.nih.gov/30002308>
30. US National Cancer Institute. Clinical Trials Using Ascorbic Acid <https://www.cancer.gov/about-cancer/treatment/clinical-trials/intervention/ascorbic-acid>

High Dose Vitamin C for Cancer - The Struggle with "Non-Evidence-Based" Medical Practice

31. Kazmierczak-Baranska J, Boguszewska K, Adamus-Grabicka A, Karwowski BT. (2020) Two faces of vitamin c-antioxidative and pro-oxidative agent. *Nutrients* 2020;12:1501. <https://pubmed.ncbi.nlm.nih.gov/32455696>
32. Roa FJ, Peña E, Gatica M, et al. (2020) Therapeutic Use of Vitamin C in Cancer: Physiological Considerations. *Front Pharmacol* 11:211. <https://pubmed.ncbi.nlm.nih.gov/32194425>
33. Pawlowska E, Szczepanska J, Blasiak J. (2019) Pro- and Antioxidant Effects of Vitamin C in Cancer in Correspondence to Its Dietary and Pharmacological Concentrations. *Oxid Med Cell Longev* 2019:7286737. <https://pubmed.ncbi.nlm.nih.gov/31934267>
34. Wilson MK, Baguley BC, et al. (2014) Review of high-dose intravenous vitamin C as an anticancer agent. *Asia Pac J Clin Oncol* 10:22-37. <https://pubmed.ncbi.nlm.nih.gov/24571058>
35. Bakalova R, Zhelev Z, Miller T, Aoki I, Higashi T. (2020) New potential biomarker for stratification of patients for pharmacological vitamin C in adjuvant settings of cancer therapy. *Redox Biol* 28:101357. <https://pubmed.ncbi.nlm.nih.gov/31678721>
36. Krzyszczyk P, Acevedo A, Davidoff EJ, et al. (2018) The growing role of precision and personalized medicine for cancer treatment. *Technol (Singap World Sci)* 6:79-100. <https://pubmed.ncbi.nlm.nih.gov/30713991>
37. Liu F, Zhu Y, Zhang J, Li Y, Peng Z. (2020) Intravenous high-dose vitamin C for the treatment of severe COVID-19: study protocol for a multicentre randomised controlled trial. *BMJ Open* 10:e039519. <https://pubmed.ncbi.nlm.nih.gov/32641343>
38. Boretti A, Banik BK. Intravenous vitamin C for reduction of cytokines storm in acute respiratory distress syndrome. *PharmaNutrition* 2020;12:100190. <https://pubmed.ncbi.nlm.nih.gov/32322486>
39. Yuen RCF, Tsao S. (2021) High dose intravenous vitamin C and Radiotherapy reversing vocal cord palsy caused by lung cancer: a case report. In: *Bridging the Gap: In This Era of Cancer Immunotherapy*, Nova Medicine and Health, Oncology; 2021, p. 180-6.
40. Cimmino L, Neel BG, Aifantis I. (2018) Vitamin C in Stem Cell Reprogramming and Cancer. *Trends Cell Biol* 28:698-708. <https://pubmed.ncbi.nlm.nih.gov/29724526>
41. Kim TJ, Byun JS, Kwon HS, Kim DY. (2018) Cellular toxicity driven by high-dose vitamin C on normal and cancer stem cells. *Biochem Biophys Res Commun* 497:347-53. <https://pubmed.ncbi.nlm.nih.gov/29432735>

High Dose Vitamin C for Cancer - The Struggle with "Non-Evidence-Based" Medical Practice

42. Cameron E, Pauling L. (1976) Supplemental ascorbate in the supportive treatment of cancer: Prolongation of survival times in terminal human cancer. Proc Natl Acad Sci USA 73:3685-3689. <https://pubmed.ncbi.nlm.nih.gov/1068480>
43. ScienceDaily. (2017) High Doses of Vitamin C to Improve Cancer Treatment Passes Human Safety Trial. <https://www.sciencedaily.com/releases/2017/03/170330142341.htm>
44. Carver College of Medicine, University of Iowa Health Care. Grant will fund cancer clinical trials to test high-dose vitamin C. <https://medicine.uiowa.edu/content/grant-will-fund-cancer-clinical-trials-test-high-dose-vitamin-c>
45. DeFrancesco EM, Bonuccelli G, Maggiolini M, Sotgia F, Lisanti MP. (2017) Vitamin C and Doxycycline: A synthetic lethal combination therapy targeting metabolic flexibility in cancer stem cells (CSCs). Oncotarget 8:67269-67286. <https://pubmed.ncbi.nlm.nih.gov/28978032>
46. Carr AC, McCall C. (2017) The role of vitamin C in the treatment of pain: new insights. J Transl Med 15:77. <https://pubmed.ncbi.nlm.nih.gov/28410599>
47. Carr AC, Vissers MCM, Cook JS. (2014) The Effect of Intravenous Vitamin C on Cancer- and Chemotherapy-Related Fatigue and Quality of Life. Front Oncol 4:283. <https://pubmed.ncbi.nlm.nih.gov/25360419>