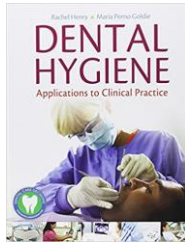


# SEMINARS for Women's Health

Sex Based Medicine



## Complementary, Alternative, or Integrative Health - Understanding Drug-Supplement Interactions

Maria Perno Goldie, RDH, MS [mariardhms@gmail.com](mailto:mariardhms@gmail.com)

2. At the end of the course, the participant will be able to:

- ▶ Evaluate common drug-supplement interactions;
- ▶ Discuss medications and supplement use and their effect on the liver;
- ▶ Identify the differences between complementary and alternative medicine (CAM), and integrative therapy;
- ▶ Research available resources that can be used to help treat patients who use supplements and prevent complications.

### 3. Definitions

- ▶ If a non-mainstream practice is used **together with** *conventional medicine*, it's considered "complementary."
- ▶ If a non-mainstream practice is used **in place of** conventional medicine, it's considered "alternative."
- ▶ "Integrative" health care involves bringing conventional and complementary approaches together in a coordinated way.

### 4. Complementary and Alternative Medicine (CAM)

- ▶ A group of diverse medical and healthcare systems, practices, and products that are not presently considered to be part of conventional medicine
- ▶ Natural health products

- ▶ Prayer
- ▶ Massage Therapy
- ▶ <https://nccih.nih.gov/>
- ▶ Whole medical systems
- ▶ Mind-body medicine
- ▶ Biologically based practices
- ▶ Manipulative and body-based practices
- ▶ Energy medicine

5. It has been estimated that between 30-40 percent of the general population in the U.S. are using or have used complementary/alternative medicine in the past year

In the U.S., herbal medications are considered Dietary Supplements and are regulated by the Dietary Supplement Health and Education Act (DSHEA) of 1994.

6. <https://nccih.nih.gov/health/integrative-health#cvsa>

7. Groden SR, Woodward AT, Chatters LM, Taylor RJ. Complementary, Alternative, and Integrative Medicine Use is Rising among Aging Baby Boomers. *The American Journal of Geriatric Psychiatry*, Volume 25, Issue 12, December 2017, Pages 1402-1403.

8. **NCCIH 2016 Strategic Plan** <https://nccih.nih.gov/about/strategic-plans/2016>

10. [https://ods.od.nih.gov/About/DSHEA\\_Wording.aspx](https://ods.od.nih.gov/About/DSHEA_Wording.aspx)

11. Report on The Regulation of Herbal Medicines and Practitioners. 26 MARCH 2015. Professor David R. WALKER, B Med Sci, MB BS, MRCP, M Sc, FFPH.

12. Natural Health Products Regulation, SOR/ 2003-196, s. 1(1), made under the Food and Drugs Act, RSC 1985, c. F-27.

13. Chor Kwan Ching, Sammy Pak Lam Chen, Hencher Han Chih Lee, Ying Hoo Lam, Sau Wah Ng, Mo Lung Chen, Magdalene Huen Yin Tang, Suzanne Suk San Chan, Candy Wai Yan Ng, Jana Wing Lan Cheung, Tina Yee Ching Chan, Nike Kwai Cheung Lau, Yeow Kuan Chong, Tony Wing Lai Mak. Adulteration of Proprietary Chinese Medicines and Health Products with Undeclared Drugs: Experience of a Tertiary Toxicology Laboratory in Hong Kong. *British Journal of Clinical Pharmacology*, 2017; DOI: 10.1111/bcp.13420.

16. Lança AJ. Herbal Medications: An Evidence-Based Review. CME Resource, Sacramento, California.

19. <https://nccih.nih.gov/health/stjohnswort/sjw-and-depression.htm>.

21. <https://www.reference.com/health/narrow-therapeutic-index-a0b9d769119080f#>.

22. <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm420349.htm>.
23. Rispler DT and Sara J. The Impact of Complementary and Alternative Treatment Modalities on the Care of Orthopaedic Patients. *Journal of the American Academy of Orthopaedic Surgeons*, 2011; 19 (10): 634-643.
24. [http://idahosocietyofanesthesiologists.com/wp-content/uploads/2017/04/asa\\_supplements-anesthesia\\_final.pdf](http://idahosocietyofanesthesiologists.com/wp-content/uploads/2017/04/asa_supplements-anesthesia_final.pdf).
26. <https://health.clevelandclinic.org/2015/02/dont-believe-everything-you-read-on-supplement-labels/>
- Newmaster et al. *BMC Medicine*. 2013, 11:222 <http://www.biomedcentral.com/1741-7015/11/22>
27. <http://www.medicaldaily.com/fdas-dietary-supplement-recall-continues-be-ignored-what-dangers-do-banned-ingredients-307670>
- Cohen PA, Maller G, De Souza R, Neal-Kababick J. Presence of Banned Drugs in Dietary Supplements Following FDA Recalls. *JAMA*. 2014.
28. Herbs and Supplements. [https://medlineplus.gov/druginfo/herb\\_All.html#A](https://medlineplus.gov/druginfo/herb_All.html#A)
29. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4491905/>
30. **LIVERTOX®** <https://livertox.nlm.nih.gov/>
31. <http://patients.gi.org/topics/medications-and-the-liver/>
32. <http://gi.org/media/current-press-releases-and-media-statements/dili-guidelines/>
33. <http://patients.gi.org/topics/medications-and-the-liver/>
34. Liperoti R, Vetrano DL, Bernabei R and Onder G. Herbal Medications in Cardiovascular Medicine. *Journal of the American College of Cardiology*, VOL. 69, NO. 9, 2017 DOI: [10.1016/j.jacc.2016.11.078](https://doi.org/10.1016/j.jacc.2016.11.078)
37. Schuurman AG, Goldbohm RA, Brants HA, et al. A prospective cohort study on intake of retinol, vitamins C and E, and carotenoids and prostate cancer risk (Netherlands). *Cancer Causes Control*. Aug 2002;13(6):573-582.
38. Oktem M, Eroglu D, Karahan HB, et al. Black cohosh and fluoxetine in the treatment of postmenopausal symptoms: a prospective, randomized trial. *Adv Ther*. Mar-Apr 2007;24(2):448-461.
39. <https://www.cancer.gov/about-cancer/treatment/side-effects/sexuality-fertility-women/hot-flashes-hp-pdq>
41. Ukiya M, Akihisa T, Yasukawa K, et al. Anti-inflammatory, anti-tumor-promoting, and cytotoxic activities of constituents of marigold (*Calendula officinalis*) flowers. *J Nat Prod*. Dec 2006;69(12):1692-1696.
44. FDA advises dietary supplement manufacturers to remove products containing comfrey from the market. <http://www.fda.gov/Food/DietarySupplements/Alerts/ucm111219.htm>.

46. <https://www.cancer.gov/about-cancer/treatment/cam/hp/cam-topics-pdq>
47. <http://www.cancerresearchuk.org/about-cancer/cancer-in-general/treatment/complementary-alternative-therapies/individual-therapies/herbal-medicine#collapse-106669>
48. <http://www.drmassoomi.com/blog/2015/marijuana-use-and-surgery/>
49. <https://www.cancer.gov/about-cancer/treatment/cam/hp/cam-topics-pdq#section/8>
50. <http://nationalacademies.org/hmd/Reports/2017/health-effects-of-cannabis-and-cannabinoids.aspx>
57. Thomson WM, Poulton R, Broadbent JM, Moffitt TE, Caspi A, Beck JD, Welch D, Hancox RJ. Cannabis smoking and periodontal disease among young adults. JAMA, February 6, 2008; 299:5. 525-31.
58. <http://zj-zcpm.com/2015/11/10/two-reasons-you-shouldnt-smoke-marijuana-while-getting-dental-implants>
60. The Perioperative Implications of Tobacco, Marijuana, and Other Inhaled Toxins. E. Bryson and E. Frost. <https://www.verywell.com/marijuana-and-surgery-3156981>
62. The Perioperative Implications of Tobacco, Marijuana, and Other Inhaled Toxins Ethan O. Bryson, MD & Elizabeth A.M. Frost, MD. INTERNATIONAL ANESTHESIOLOGY CLINICS, Volume 49, Number 1, 103–118. 2011, Lippincott Williams & Wilkins.
64. <https://www.mskcc.org/cancer-care/diagnosis-treatment/symptom-management/integrative-medicine/herbs>
65. <https://nccih.nih.gov/training/videlectures/clinically-relevant-herb-drug-interactions>
66. <https://nccih.nih.gov/health/providers/digest/herb-drug>
67. <https://reference.medscape.com/drug-interactionchecker>
68. <https://www.fda.gov/drugs/resourcesforyou/ucm163354.htm>
69. <https://www.fda.gov/downloads/forconsumers/byaudience/forwomen/freepublications/ucm554410.pdf>
70. <https://www.drugs.com/slideshow/herb-drug-interactions-1069>  
[https://www.drugs.com/drug\\_interactions.html](https://www.drugs.com/drug_interactions.html)

**PHILIPS**  
**sonicare**