Template

Entire dispensary

Review plan (10)

< Back

Vaginal Health Support

▼ Template by Fullscript

Updated Apr 28th, 2025

Preview Evidence

Evidence rating

The following protocols were developed using only a,b,c,d-quality evidence

Learn more about our rating scale [2

Overview

Introduction

Whole person care is a person-centered approach to medicine. It goes beyond treating symptoms or isolated conditions, focusing on the interconnectedness of bodily systems and addressing a wide range of factors. These include biological makeup, behavioral habits, environmental factors, and a patient's personal beliefs, values, and goals. By tailoring care to align with these unique aspects, healthcare providers can create highly personalized treatment plans that address not only physical health but also emotional and mental well-being.

This protocol aims to provide healthcare providers with practical suggestions for supplements, helping them design personalized whole person care plans for patient looking to prevent or treat vaginal infections and support a healthy vaginal microbion.

Evidence-based supplements can support the pillars of vaginal health, such as hormonal equilibrium, a balanced microbiome, and tissue integrity. Providers can integrate these supplements into customized protocols based on their patient's needs and goals to treat existing infections and prevent future vaginal health issues.

How To Use This Protocol

This protocol offers guidance to help healthcare providers integrate supplements into their patient care plans. Start by assessing the patient's unique needs, goals, and health status. Incorporate evidence-based supplements to address specific needs and preferences and enhance health outcomes.

Lactobacillus Probiotics

Ingredients

Lactobacillus Probiotics

Dosing: 1–10 billion CFU for one week (acute treatment) to six months (maintenance) (Cribby 2009) (Chieng 2022)

Supporting evidence:

- Probiotics are live microorganisms that provide health benefits when consumed in adequate amounts by supporting the balance of beneficial microbes in the gut. (Bodke 2022)
- Lactobacillus spp. are the dominant bacteria in a healthy vaginal microbiome
 responsible for maintaining an acidic environment, preventing the overgrowth of
 harmful pathogens, and promoting vaginal health through the production of lactic
 acid and antimicrobial substances. (Mashatan 2023)
- In a double-blind, randomized, controlled clinical pilot trial, ASTARTE™, an oral
 probiotic blend containing *L. crispatus*, *L. rhamnosus*, *L. gasseri*, and *L. jensenii*, was
 shown to improve bacterial vaginosis (BV) recovery rates when used alongside
 metronidazole for four weeks. (Laue 2018)
- In this prospective study, 30 pregnant women with herpes virus infection received a one-week course of oral probiotics—containing *L. crispatus*, *L. rhamnosus*, *L. gasseri*, and *L. jensenii*—and fructooligosaccharides as part of their prenatal care. Following the intervention, participants showed significant improvements in intestinal and vaginal microbiota, with increased levels of *Lactobacillus* and *Bifidobacterium* and reduced colonization by *Candida*, *Staphylococcus aureus*, *Klebsiella*, and other opportunistic pathogens. Clinical symptoms such as bloating, constipation, vaginal discharge, and itching decreased by 2–3 times. Additionally, the rates of placental

insufficiency, fetal distress, and pre-eclampsia were reduced by approximately half. No adverse effects were reported. (Anoshina 2016)

- In a randomized trial, women over the age of 18 with BV were assigned to take either a daily oral probiotic containing *L. rhamnosus* GR-1 and *L. reuteri* RC-14 or a placebo for six weeks. After 44 days, 61.5% of the probiotic group restored balance to their vaginal microbiota compared to 26.9% in the placebo group, and more than half (51.1%) of the probiotic group maintained microbial homeostasis after an additional six weeks. (Vujic 2013)
- Postmenopausal women taking an oral probiotic formula of *L. rhamnosus* GR-1 and *L. reuteri* RC-14 had significantly reduced Nugent scores for BV and improvements in menopausal genitourinary symptoms, such as vaginal dryness, sexual dysfunction, and urinary frequency. (Petricevic 2008)
- This triple-blinded RCT evaluated oral *L. acidophilus* LA-5 in 40 women with vulvovaginal candidiasis over 60–65 days. The probiotics improved symptoms like itching, discharge, and erythema, especially within the first month, but were less effective than fluconazole in preventing recurrence (19.4% vs. 45.5% negative cultures at day 60). (Mollazadeh-Narestan 2023)

Side effects:

- While probiotics are generally safe for most individuals, they may pose risks such as sepsis, fungemia, and gastrointestinal ischemia in critically ill patients, immunecompromised individuals, and those in postoperative settings. (Didari 2014)
- Research indicates that oral probiotic supplementation is generally safe during
 pregnancy and lactation. (Sheyholislami 2021) While oral probiotics have been more
 extensively studied, data on the use of vaginal probiotics during these life stages
 remain limited.

Boric Acid

Boric Acid

Dosing: 600 mg inserted vaginally 1–2 times daily for up to four weeks (Müller 2024) (Workowsi 2021)

Supporting evidence:

- Boric acid, or hydrogen borate, is a weak acid with antifungal and antibacterial properties. (Powell 2019)
- A review including 14 studies reported that intravaginal boric acid was associated with symptom resolution in 40–100% of women treated for vulvovaginal candidiasis

(VVC). (lavazzo 2011)

In a study of 105 women with recurrent BV unresponsive to standard treatments, a
combination regimen of oral nitroimidazole for seven days followed by vaginal boric
acid for 30 days resulted in symptom resolution in 98.9% of participants. (Surapaneni
2021)

Side effects:

- Short courses of intravaginal boric acid are generally well tolerated. Mild side effects may include watery vaginal discharge, redness, and burning. (Prutting 1998)
- Long-term safety data for intravaginal boric acid is lacking. (Müller 2024)
- Ingesting boric acid can lead to gastrointestinal distress, dermatological reactions, kidney failure, neurological symptoms, and potentially fatal multi-organ failure. (Restuccio 1992)(Webb 2013)(Wong 1964)

Estriol

Estriol

Dosing: 1 mg inserted vaginally every night for 14 days before reducing frequency to twice weekly (Dessole 2004)

Supporting evidence:

- Declining estrogen levels during menopause lead to a thinning of the vaginal walls and a decrease in the abundance of *Lactobacillus* spp., altering vaginal pH. These changes may increase the susceptibility to infections and contribute to vaginal symptoms like dryness and discomfort. (Park 2023)
- Vaginal estriol cream significantly alters the vaginal ecosystem in postmenopausal women with stress incontinence. Specifically, 12 weeks of therapy resulted in reduced vaginal pH and notably increased *Lactobacillus* and *Bifidobacterium* growth, especially in women with a *Lactobacilli*-deficient microbiome pre-treatment. (Moore 2024)

Side effects:

• Studies have shown that ultra-low-dose estriol formulations result in minimal systemic absorption; therefore, vaginal estriol is generally considered safe for postmenopausal women. (Delgado 2016) (Sánchez-Rovira 2020). However, providers should assess each patient individually to determine the suitability of vaginal estriol, taking into account personal risk factors, symptom severity, and overall health status.

• One study reported a transient increase in *Candida* colonization shortly after initiating treatment with vaginal estriol and *Lactobacilli* tablets, which returned to baseline levels with continued use. (Donders 2015)

Vitamin C

Vitamin C

Dosing: 250 mg tablet inserted vaginally for six days (Krasnopolsky 2013)

Supporting evidence:

- In one study, vitamin C tablets inserted vaginally significantly reduced the presence of non-specific vaginitis compared to placebo, in addition to substantially reducing vaginal pH and increasing *Lactobacillus* concentrations. (Petersen 2004)
- Women who received prophylactic intravaginal vitamin C therapy after being treated for BV had a significantly lower BV recurrence rate (16.2%) than women who received a placebo (32.4%). (Krasnopolsky 2013)
- Low-risk pregnant and non-pregnant premenopausal women with vaginal pH ≥4.5 and disrupted *Lactobacillus* microflora who administered vaginal vitamin C tablets daily for six days, followed by weekly maintenance for 12 weeks, showed a 51.4% normalization to healthy vaginal flora after four months. (Zodzika 2013)

Side effects:

 According to clinical studies, the most common side effects of intravaginal vitamin C are localized itching and irritation. (Zodzika 2013)

References

- Akimoto-Gunther, L., Bonfim-Mendonça, P.deS., Takahachi, G., Irie, M. M., Miyamoto, S., Consolaro, M. E., & Svidzinsk, T. I. (2016). Highlights Regarding Host Predisposing Factors to Recurrent Vulvovaginal Candidiasis: Chronic Stress and Reduced Antioxidant Capacity. PloS one, 11(7), e0158870. https://doi.org/10.1371/journal.pone.0158870
- 2. Amabebe, E., & Anumba, D. O. C. (2018). Psychosocial Stress, Cortisol Levels, and Maintenance of Vaginal Health. Frontiers in endocrinology, 9, 568. https://doi.org/10.3389/fendo.2018.00568
- 3. Anoshina, T. M., & Shupyk National Medical Academy of Postgraduate Education, Kyiv, Ukraine. (2017). Role of microbiota correction in complex treatment of pregnant

women with herpesvirus infection. PERINATOLOGIYA I PEDIATRIYA, 68(4), 22–25. https://doi.org/10.15574/pp.2016.68.22

- 4. Astrup, A., Teicholz, N., Magkos, F., Bier, D. M., Brenna, J. T., King, J. C., Mente, A., Ordovas, J. M., Volek, J. S., Yusuf, S., & Krauss, R. M. (2021). Dietary Saturated Fats and Health: Are the U.S. Guidelines Evidence-Based?. Nutrients, 13(10), 3305. https://doi.org/10.3390/nu13103305
- 5. Bodke, H., & Jogdand, S. (2022). Role of Probiotics in Human Health. Cureus, 14(11), e31313. https://doi.org/10.7759/cureus.31313
- 6. Brown, J. M., Hess, K. L., Brown, S., Murphy, C., Waldman, A. L., & Hezareh, M. (2013). Intravaginal practices and risk of bacterial vaginosis and candidiasis infection among a cohort of women in the United States. Obstetrics and gynecology, 121(4), 773–780. https://doi.org/10.1097/AOG.0b013e31828786f8
- 7. Chan, Y. M., Bailey, R., & O'Connor, D. L. (2013). Folate. Advances in nutrition (Bethesda, Md.), 4(1), 123–125. https://doi.org/10.3945/an.112.003392
- 8. Chen, Y., Bruning, E., Rubino, J., & Eder, S. E. (2017). Role of female intimate hygiene in vulvovaginal health: Global hygiene practices and product usage. Women's health (London, England), 13(3), 58–67. https://doi.org/10.1177/1745505717731011
- 9. Chieng, W. K., Abdul Jalal, M. I., Bedi, J. S., Zainuddin, A. A., Mokhtar, M. H., Abu, M. A., Chew, K. T., & Nur Azurah, A. G. (2022). Probiotics, a promising therapy to reduce the recurrence of bacterial vaginosis in women? a systematic review and meta-analysis of randomized controlled trials. Frontiers in nutrition, 9, 938838. https://doi.org/10.3389/fnut.2022.938838
- 10. Cormick, G., & Belizán, J. M. (2019). Calcium Intake and Health. Nutrients, 11(7), 1606. https://doi.org/10.3390/nu11071606
- 11. Cribby, S., Taylor, M., & Reid, G. (2008). Vaginal microbiota and the use of probiotics. Interdisciplinary perspectives on infectious diseases, 2008, 256490. https://doi.org/10.1155/2008/256490
- 12. Delgado, J. L., Estevez, J., Radicioni, M., Loprete, L., Moscoso Del Prado, J., & Nieto Magro, C. (2016). Pharmacokinetics and preliminary efficacy of two vaginal gel formulations of ultra-low-dose estriol in postmenopausal women. Climacteric: the journal of the International Menopause Society, 19(2), 172–180. https://doi.org/10.3109/13697137.2015.1098609
- 13. Dessole, S., Rubattu, G., Ambrosini, G., Gallo, O., Capobianco, G., Cherchi, P. L., Marci, R., & Cosmi, E. (2004). Efficacy of low-dose intravaginal estriol on urogenital aging in postmenopausal women. Menopause (New York, N.Y.), 11(1), 49–56. https://doi.org/10.1097/01.GME.0000077620.13164.62
- 14. Didari, T., Solki, S., Mozaffari, S., Nikfar, S., & Abdollahi, M. (2014). A systematic review of the safety of probiotics. Expert opinion on drug safety, 13(2), 227–239. https://doi.org/10.1517/14740338.2014.872627

15. Donders, G., Bellen, G., Neven, P., Grob, P., Prasauskas, V., Buchholz, S., & Ortmann, O. (2015). Effect of ultra-low-dose estriol and lactobacilli vaginal tablets (Gynoflor®) on inflammatory and infectious markers of the vaginal ecosystem in postmenopausal women with breast cancer on aromatase inhibitors. European journal of clinical microbiology & infectious diseases: official publication of the European Society of Clinical Microbiology, 34(10), 2023–2028. https://doi.org/10.1007/s10096-015-2447-1

- 16. Ehrström, S. M., Kornfeld, D., Thuresson, J., & Rylander, E. (2005). Signs of chronic stress in women with recurrent candida vulvovaginitis. American journal of obstetrics and gynecology, 193(4), 1376–1381. https://doi.org/10.1016/j.ajog.2005.03.068
- 17. Ferretti, F., & Mariani, M. (2017). Simple vs. Complex Carbohydrate Dietary Patterns and the Global Overweight and Obesity Pandemic. International journal of environmental research and public health, 14(10), 1174. https://doi.org/10.3390/ijerph14101174
- 18. lavazzo, C., Gkegkes, I. D., Zarkada, I. M., & Falagas, M. E. (2011). Boric acid for recurrent vulvovaginal candidiasis: the clinical evidence. Journal of women's health (2002), 20(8), 1245–1255. https://doi.org/10.1089/jwh.2010.2708
- 19. Ioniță-Mîndrican, C. B., Ziani, K., Mititelu, M., Oprea, E., Neacșu, S. M., Moroșan, E., Dumitrescu, D. E., Roșca, A. C., Drăgănescu, D., & Negrei, C. (2022). Therapeutic Benefits and Dietary Restrictions of Fiber Intake: A State of the Art Review. Nutrients, 14(13), 2641. https://doi.org/10.3390/nu14132641
- 20. Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., Chapleau, M. A., Paquin, K., & Hofmann, S. G. (2013). Mindfulness-based therapy: a comprehensive meta-analysis. Clinical psychology review, 33(6), 763–771. https://doi.org/10.1016/j.cpr.2013.05.005
- 21. Klebanoff, M. A., Nansel, T. R., Brotman, R. M., Zhang, J., Yu, K. F., Schwebke, J. R., & Andrews, W. W. (2010). Personal hygienic behaviors and bacterial vaginosis. Sexually transmitted diseases, 37(2), 94–99. https://doi.org/10.1097/OLQ.0b013e3181bc063c
- 22. Krasnopolsky, V. N., Prilepskaya, V. N., Polatti, F., Zarochentseva, N. V., Bayramova, G. R., Caserini, M., & Palmieri, R. (2013). Efficacy of vitamin C vaginal tablets as prophylaxis for recurrent bacterial vaginosis: a randomised, double-blind, placebocontrolled clinical trial. Journal of clinical medicine research, 5(4), 309–315. https://doi.org/10.4021/jocmr1489w
- 23. Laue, C., Papazova, E., Liesegang, A., Pannenbeckers, A., Arendarski, P., Linnerth, B., Domig, K. J., Kneifel, W., Petricevic, L., & Schrezenmeir, J. (2017). Effect of a yoghurt drink containing Lactobacillus strains on bacterial vaginosis in women a double-blind, randomised, controlled clinical pilot trial. Beneficial Microbes, 9(1), 1–16. https://doi.org/10.3920/BM2017.0018
- 24. Li, X., Liu, X., & Yu, S. (2015). Psychological Stress-Derived Prolactin Modulates Occludin Expression in Vaginal Epithelial Cells to Compromise Barrier Function.

Cellular physiology and biochemistry: international journal of experimental cellular physiology, biochemistry, and pharmacology, 37(1), 153–161. https://doi.org/10.1159/000430341

- 25. Mashatan, N., Heidari, R., Altafi, M., Amini, A., Ommati, M. M., & Hashemzaei, M. (2023). Probiotics in vaginal health. Pathogens and disease, 81, ftad012. https://doi.org/10.1093/femspd/ftad012
- 26. McEldrew, E.P., Lopez M.J., & Milstein, H. Vitamin A. [Updated 2023 Jul 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-.
- 27. Miller, C., Morikawa, K., Benny, P., Riel, J., Fialkowski, M. K., Qin, Y., Khadka, V., & Lee, M. J. (2024). Effects of Dietary Quality on Vaginal Microbiome Composition Throughout Pregnancy in a Multi-Ethnic Cohort. Nutrients, 16(19), 3405. https://doi.org/10.3390/nu16193405
- 28. Mollazadeh-Narestan, Z., Yavarikia, P., Homayouni-Rad, A., Samadi Kafil, H., Mohammad-Alizadeh-Charandabi, S., Gholizadeh, P., & Mirghafourvand, M. (2023). Comparing the Effect of Probiotic and Fluconazole on Treatment and Recurrence of Vulvovaginal Candidiasis: a Triple-Blinded Randomized Controlled Trial. Probiotics and antimicrobial proteins, 15(5), 1436–1446. https://doi.org/10.1007/s12602-022-09997-3
- 29. Moore, K. H., Ognenovska, S., Chua, X. Y., Chen, Z., Hicks, C., El-Assaad, F., Te West, N., & El-Omar, E. (2024). Change in microbiota profile after vaginal estriol cream in postmenopausal women with stress incontinence. Frontiers in microbiology, 15, 1302819. https://doi.org/10.3389/fmicb.2024.1302819
- 30. Müller, M., Damsted Petersen, C., & Saunte, D. (2024). Boric Acid for the Treatment of Vaginitis: New Possibilities Using an Old Anti-Infective Agent: A Systematic Review. Dermatologic Therapy. https://doi.org/10.1155/2024/2807070
- 31. Najiabhary, M., Hoseinnezhad, S., Heshmat, F.,& Asgharipour, N. (2023). Effectiveness of Mindfulness Interventions on Womens Sexual Health: A Systematic Review. Current Psychosomatic Research, 2(1): 19-28.
- 32. Nansel, T. R., Riggs, M. A., Yu, K. F., Andrews, W. W., Schwebke, J. R., & Klebanoff, M. A. (2006). The association of psychosocial stress and bacterial vaginosis in a longitudinal cohort. American journal of obstetrics and gynecology, 194(2), 381–386. https://doi.org/10.1016/j.ajog.2005.07.047
- 33. Neggers, Y. H., Nansel, T. R., Andrews, W. W., Schwebke, J. R., Yu, K. F., Goldenberg, R. L., & Klebanoff, M. A. (2007). Dietary intake of selected nutrients affects bacterial vaginosis in women. The Journal of nutrition, 137(9), 2128–2133. https://doi.org/10.1093/jn/137.9.2128
- 34. Noormohammadi, M., Eslamian, G., Kazemi, S. N., & Rashidkhani, B. (2022).

 Association between dietary patterns and bacterial vaginosis: a case-control study.

 Scientific reports, 12(1), 12199. https://doi.org/10.1038/s41598-022-16505-8

35. Park, M. G., Cho, S., & Oh, M. M. (2023). Menopausal Changes in the Microbiome-A Review Focused on the Genitourinary Microbiome. Diagnostics (Basel, Switzerland), 13(6), 1193. https://doi.org/10.3390/diagnostics13061193

- 36. Petersen, E. E., & Magnani, P. (2004). Efficacy and safety of vitamin C vaginal tablets in the treatment of non-specific vaginitis. A randomised, double blind, placebocontrolled study. European journal of obstetrics, gynecology, and reproductive biology, 117(1), 70–75. https://doi.org/10.1016/j.ejogrb.2004.02.032
- 37. Petricevic, L., Unger, F. M., Viernstein, H., & Kiss, H. (2008). Randomized, double-blind, placebo-controlled study of oral lactobacilli to improve the vaginal flora of postmenopausal women. European journal of obstetrics, gynecology, and reproductive biology, 141(1), 54–57. https://doi.org/10.1016/j.ejogrb.2008.06.003
- 38. Powell, A., Ghanem, K. G., Rogers, L., Zinalabedini, A., Brotman, R. M., Zenilman, J., & Tuddenham, S. (2019). Clinicians' Use of Intravaginal Boric Acid Maintenance Therapy for Recurrent Vulvovaginal Candidiasis and Bacterial Vaginosis. Sexually transmitted diseases, 46(12), 810–812. https://doi.org/10.1097/OLQ.000000000001063
- 39. Prutting, S. M., & Cerveny, J. D. (1998). Boric acid vaginal suppositories: a brief review. Infectious diseases in obstetrics and gynecology, 6(4), 191–194. https://doi.org/10.1002/(SICI)1098-0997(1998)6:4<191::AID-IDOG10>3.0.CO;2-6
- 40. Restuccio, A., Mortensen, M. E., & Kelley, M. T. (1992). Fatal ingestion of boric acid in an adult. The American journal of emergency medicine, 10(6), 545–547. https://doi.org/10.1016/0735-6757(92)90180-6
- 41. Rizvi, S., Raza, S. T., Ahmed, F., Ahmad, A., Abbas, S., & Mahdi, F. (2014). The role of vitamin e in human health and some diseases. Sultan Qaboos University medical journal, 14(2), e157–e165.
- 42. Sánchez-Rovira, P., Hirschberg, A. L., Gil-Gil, M., Bermejo-De Las Heras, B., & Nieto-Magro, C. (2020). A Phase II Prospective, Randomized, Double-Blind, Placebo-Controlled and Multicenter Clinical Trial to Assess the Safety of 0.005% Estriol Vaginal Gel in Hormone Receptor-Positive Postmenopausal Women with Early Stage Breast Cancer in Treatment with Aromatase Inhibitor in the Adjuvant Setting. The oncologist, 25(12), e1846–e1854. https://doi.org/10.1634/theoncologist.2020-0417
- 43. Sasani, E., Rafat, Z., Ashrafi, K., Salimi, Y., Zandi, M., Soltani, S., Hashemi, F., & Hashemi, S. J. (2021). Vulvovaginal candidiasis in Iran: A systematic review and meta-analysis on the epidemiology, clinical manifestations, demographic characteristics, risk factors, etiologic agents and laboratory diagnosis. Microbial pathogenesis, 154, 104802. https://doi.org/10.1016/j.micpath.2021.104802
- 44. Sheyholislami, H., & Connor, K. L. (2021). Are Probiotics and Prebiotics Safe for Use during Pregnancy and Lactation? A Systematic Review and Meta-Analysis. Nutrients, 13(7), 2382. https://doi.org/10.3390/nu13072382

45. Shivakoti, R., Tuddenham, S., Caulfield, L. E., Murphy, C., Robinson, C., Ravel, J., Ghanem, K. G., & Brotman, R. M. (2020). Dietary macronutrient intake and molecular-bacterial vaginosis: Role of fiber. Clinical nutrition (Edinburgh, Scotland), 39(10), 3066–3071. https://doi.org/10.1016/j.clnu.2020.01.011

- 46. Surapaneni, S., Akins, R., & Sobel, J. D. (2021). Recurrent Bacterial Vaginosis: An Unmet Therapeutic Challenge. Experience With a Combination Pharmacotherapy Long-Term Suppressive Regimen. Sexually transmitted diseases, 48(10), 761–765. https://doi.org/10.1097/OLQ.000000000001420
- 47. Thoma, M. E., Klebanoff, M. A., Rovner, A. J., Nansel, T. R., Neggers, Y., Andrews, W. W., & Schwebke, J. R. (2011). Bacterial vaginosis is associated with variation in dietary indices. The Journal of nutrition, 141(9), 1698–1704. https://doi.org/10.3945/jn.111.140541
- 48. Turpin, R., Slopen, N., Borgogna, J. C., Yeoman, C. J., He, X., Miller, R. S., Klebanoff, M. A., Ravel, J., & Brotman, R. M. (2021). Perceived Stress and Molecular Bacterial Vaginosis in the National Institutes of Health Longitudinal Study of Vaginal Flora. American journal of epidemiology, 190(11), 2374–2383. https://doi.org/10.1093/aje/kwab147
- 49. Vujic, G., Jajac Knez, A., Despot Stefanovic, V., & Kuzmic Vrbanovic, V. (2013). Efficacy of orally applied probiotic capsules for bacterial vaginosis and other vaginal infections: a double-blind, randomized, placebo-controlled study. European journal of obstetrics, gynecology, and reproductive biology, 168(1), 75–79. https://doi.org/10.1016/j.ejogrb.2012.12.031
- 50. Webb, D. V., Stowman, A. M., & Patterson, J. W. (2013). Boric acid ingestion clinically mimicking toxic epidermal necrolysis. Journal of cutaneous pathology, 40(11), 962–965. https://doi.org/10.1111/cup.12205
- 51. Wilson, J. D., Lee, R. A., Balen, A. H., & Rutherford, A. J. (2007). Bacterial vaginal flora in relation to changing oestrogen levels. International journal of STD & AIDS, 18(5), 308–311. https://doi.org/10.1258/095646207780749583
- 52. WONG, L. C., HEIMBACH, M. D., TRUSCOTT, D. R., & DUNCAN, B. D. (1964). BORIC ACID POISONING: REPORT OF 11 CASES. Canadian Medical Association journal, 90(17), 1018–1023.
- 53. Workowski, K. A., Bachmann, L. H., Chan, P. A., Johnston, C. M., Muzny, C. A., Park, I., Reno, H., Zenilman, J. M., & Bolan, G. A. (2021). Sexually Transmitted Infections Treatment Guidelines, 2021. MMWR. Recommendations and reports: Morbidity and mortality weekly report. Recommendations and reports, 70(4), 1–187. https://doi.org/10.15585/mmwr.rr7004a1
- 54. Zodzika, J., Rezeberga, D., Donders, G., Vedmedovska, N., Vasina, O., Pundure, I., Bite, R., Silberga, I., Socenova, J., & Melngaile, O. (2013). Impact of vaginal ascorbic acid on abnormal vaginal microflora. Archives of gynecology and obstetrics, 288(5), 1039–1044. https://doi.org/10.1007/s00404-013-2876-y

55. Zong, G., Li, Y., Sampson, L., Dougherty, L. W., Willett, W. C., Wanders, A. J., Alssema, M., Zock, P. L., Hu, F. B., & Sun, Q. (2018). Monounsaturated fats from plant and animal sources in relation to risk of coronary heart disease among US men and women. The American journal of clinical nutrition, 107(3), 445–453. https://doi.org/10.1093/ajcn/nqx004

Disclaimer: Protocols are intended solely as an informational reference tool for practicing health care professionals. The content provided is not intended to be for medical diagnosis or treatment, is not a substitute for your professional judgment, and is not meant to provide you medical or professional advice. You should evaluate and independently confirm the appropriateness of the content provided, including verifying uses, dosages, warnings and contraindications on product labels, and rely on your experience and judgment and other available resources when applying the provided content to an actual client care situation. While content has been obtained from sources believed to be reliable, we cannot and do not guarantee the accuracy, validity, timeliness or completeness of the content. We make no representation or warranty, express or implied, including, without limitation, any warranty of merchantability or of fitness for a particular purpose, and you assume full responsibility for the use of the content and products, and agree that Fullscript and its content providers are not responsible or liable for any claim, loss, injury or damage arising from your use of the information. Statements regarding dietary and other health care supplements have not been evaluated by the FDA, and are not intended to diagnose, treat, cure, or prevent any disease.

Template

Total starts at \$83.16

Add to plan

① We won't overwrite any existing dosage information.

^{*}These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

[†]Claims based on traditional homeopathic practice, not accepted medical evidence. Not FDA evaluated.



© Fullscript 2025. All rights reserved.

Terms of Service Privacy Statement Privacy Rights Notice

Help and Support