**Queen of Hearts: Cardiovascular disease prevention in women**

Rachna Prasad MBBS1 , Priyanka Satish, MD2, Anandita Agarwala Kulkarni, MD3

1. Govt. Stanley Medical College, Chennai, India
2. Houston Methodist DeBakey Heart and Vascular Center, TX, USA
3. Center for Cardiovascular Disease Prevention, Baylor Scott and White Health Heart Hospital Baylor Plano, Plano, Texas, USA

Cardiovascular disease (CVD) has traditionally been seen as a disease affecting predominantly men. However, women have a similar lifetime risk of heart disease as men [[1](https://www.zotero.org/google-docs/?hcBpCQ), [2]](https://www.zotero.org/google-docs/?R6sgHV), and have classically been underdiagnosed and undertreated for this disease [[3]](https://www.zotero.org/google-docs/?WP9gG4).

Cardiovascular risk in women is defined by more than just traditional risk factors like hypertension, diabetes and abnormal lipids. It is crucial that women be aware of, and screened for gender-specific risk factors, including pregnancy-associated conditions (such as hypertensive disorders of pregnancy, gestational diabetes mellitus, preterm birth, and pregnancy loss) and polycystic ovary syndrome (PCOS) [[4]](https://www.zotero.org/google-docs/?5Ufy0O). Women with these conditions should be periodically screened for the development of hypertension, diabetes and cardiovascular disease. Furthermore, the risk of heart disease varies among premenopausal, postmenopausal, and pregnant women, necessitating tailored approaches [[5](https://www.zotero.org/google-docs/?UQEY6V)].

Primordial prevention, recognized as the most effective form of prevention, holds immense potential in reducing CVD risk, especially in younger women [[6]](https://www.zotero.org/google-docs/?7kTX0X). Adopting healthy eating habits, engaging in regular exercise, and refraining from smoking, can significantly decrease CVD risk. Even among women with heart disease, well known disparities exist in seeking healthcare and the treatment that women receive once diagnosed with heart disease. Not only that, there are significant disparities in research studying heart disease in women.

Furthermore, specific interventions hold promise for certain subsets of women. For example, sodium restriction has shown particular benefits among postmenopausal women with hypertension.[[7]](https://www.zotero.org/google-docs/?Lv0HnA) Psychosocial factors and mental health conditions like depression are more prevalent in women and should be identified and addressed as part of comprehensive cardiovascular disease prevention. [[8]](https://www.zotero.org/google-docs/?ci2bCr) Women with autoimmune diseases also face an increased risk of cardiovascular disease and should undergo additional screening for cardiovascular risk factors, as these conditions may serve as early indicators of elevated risk. [[9]](https://www.zotero.org/google-docs/?FqYhgm)

Reducing the risk of heart disease in women requires acknowledging and addressing unique risk factors and adopting a comprehensive approach to heart health. Empowering women and their clinicians with knowledge, fostering healthy lifestyle habits, and ensuring access to gender sensitive health care will contribute to significantly reducing disparities in cardiovascular outcomes seen in women.

**References:**

[[1] G. Albrektsen *et al.*, “Lifelong Gender Gap in Risk of Incident Myocardial Infarction: The Tromsø Study,” *JAMA Intern. Med.*, vol. 176, no. 11, p. 1673, Nov. 2016, doi: 10.1001/jamainternmed.2016.5451.](https://www.zotero.org/google-docs/?iarAHg)

[[2] M. J. G. Leening *et al.*, “Sex differences in lifetime risk and first manifestation of cardiovascular disease: prospective population based cohort study,” *BMJ*, vol. 349, no. nov17 9, pp. g5992–g5992, Nov. 2014, doi: 10.1136/bmj.g5992.](https://www.zotero.org/google-docs/?iarAHg)

[[3] N. K. Wenger, “Women and coronary heart disease: a century after Herrick: understudied, underdiagnosed, and undertreated,” *Circulation*, vol. 126, no. 5, pp. 604–611, Jul. 2012, doi: 10.1161/CIRCULATIONAHA.111.086892.](https://www.zotero.org/google-docs/?iarAHg)

[[4] H. L. Brown *et al.*, “Promoting Risk Identification and Reduction of Cardiovascular Disease in Women Through Collaboration With Obstetricians and Gynecologists: A Presidential Advisory From the American Heart Association and the American College of Obstetricians and Gynecologists,” *Circulation*, vol. 137, no. 24, pp. e843–e852, Jun. 2018, doi: 10.1161/CIR.0000000000000582.](https://www.zotero.org/google-docs/?iarAHg)

[[5] C. N. Bairey Merz, T. Ramineni, and D. Leong, “Sex-specific risk factors for cardiovascular disease in women-making cardiovascular disease real,” *Curr. Opin. Cardiol.*, vol. 33, no. 5, pp. 500–505, Sep. 2018, doi: 10.1097/HCO.0000000000000543.](https://www.zotero.org/google-docs/?iarAHg)

[[6] A. K. Chomistek, S. E. Chiuve, A. H. Eliassen, K. J. Mukamal, W. C. Willett, and E. B. Rimm, “Healthy Lifestyle in the Primordial Prevention of Cardiovascular Disease Among Young Women,” *J. Am. Coll. Cardiol.*, vol. 65, no. 1, pp. 43–51, Jan. 2015, doi: 10.1016/j.jacc.2014.10.024.](https://www.zotero.org/google-docs/?iarAHg)

[[7] J.-M. Kim, T.-H. Kim, H.-H. Lee, S. H. Lee, and T. Wang, “Postmenopausal hypertension and sodium sensitivity,” *J. Menopausal Med.*, vol. 20, no. 1, pp. 1–6, Apr. 2014, doi: 10.6118/jmm.2014.20.1.1.](https://www.zotero.org/google-docs/?iarAHg)

[[8] K. Orth-Gomér, “Psychosocial and behavioral aspects of cardiovascular disease prevention in men and women,” *Curr. Opin. Psychiatry*, vol. 20, no. 2, pp. 147–151, Mar. 2007, doi: 10.1097/YCO.0b013e32802b705e.](https://www.zotero.org/google-docs/?iarAHg)

[[9] A. Durante and S. Bronzato, “The increased cardiovascular risk in patients affected by autoimmune diseases: review of the various manifestations,” *J. Clin. Med. Res.*, vol. 7, no. 6, pp. 379–384, Jun. 2015, doi: 10.14740/jocmr2122w.](https://www.zotero.org/google-docs/?iarAHg)