Vitamin K
Inhibits estrogen activity by binding to estrogen receptors; Lowers the ratio of estradiol (strong estrogen) to estrone (weaker estrogen). 14,15

Vitamin C
Deiciency impairs estrogen detoxication pathway; Some forms of vitamin E inhibit estrogen action, especially in breast tissue; Low levels linked to higher estrogen. 1,16,17

Vitamin E
Deiciency reduces estrogen levels; Excess folate is linked to some types of estrogen-related breast cancer; Detoxies excess estrogen via methylation pathway; Regulates estrogen’s effect on genes. 1,2,3

Magnesium
Cofactor for the enzyme that removes toxic forms of estrogen (catechol-O-methyltransferase); Estrogen alters magnesium levels throughout menstrual cycle. 1,24,25,26

Choline
Estrogen stimulates the breakdown of phosphatidylycholine (cell membrane) so those with low estrogen (postmenopausal women) require more choline; Detoxies excess estrogen via methylation pathway. 1,32,33

Zinc
Estrogen lowers risk of zinc deficiency; Zinc dependent proteins metabolize estrogen. 26,27,28

Calcium
Calcium-D-glucarate lowers estradiol levels; Helps breakdown estrogen in the liver and convert it to a less toxic form. 1,20,21

Cysteine
Prevents oxidation of estrogen into a dangerous form that causes breast cancer. 29,30,31

Selenium
Estrogen levels affect how selenium is distributed to various tissues in the body. 22,23

Folate
Deiciency reduces estrogen levels; Excess folate is linked to some types of estrogen-related breast cancer; Detoxies excess estrogen via methylation pathway; Regulates estrogen’s effect on genes. 1,2,3

Vitamin A
Helps metabolize the biologically active estrogen (estradiol) to an inactive form (estrone). 18,19

Vitamin B6
Protects genes from estrogen-induced damage thus lowering risk of hormone related cancers; Detoxies excess estrogen via methylation pathway; Estrogen-based oral contraceptives cause B6 deficiency. 4,5,6,7

Vitamin D
Regulates synthesis of estradiol and estrone; Enhances estrogen’s protective effect on bones. 8,9,10

Vitamin C
Increases the most potent estrogen (estradiol) in women on hormone therapy; Lowers aromatase (enzyme that converts testosterone to estrogen) in ovaries. 11,12,13

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