

Mechanisms Through Which Dietary And Nutritional Factors May Influence Estrogen Metabolism (keeps estrogen safe!)

Focus on Nutrients in Bold

Mechanism of Action	Nutrients : Focus on Nutrients in Bold
Promote C-2 hydroxylation over C-4 and/or C-16 α hydroxylation of estrogens	<ul style="list-style-type: none"> Cruciferous vegetables (Kale, collards, radishes, turnips, mustard, cabbage, broccoli, cauliflower, bok choy, horseradish, watercress, Brussels sprouts) Indole-3-carbinol & DIM (see supplements: I3C Plus by Health Products, Indole-3-Carbinol by Thorne, DIM Avail by Designs for Health) Rosemary (herb) Isoflavones (soy, kudzu (a thickening agent), clover)
Reduce the oxidation of catechol estrogens (2-OH and 4-OH)	<ul style="list-style-type: none"> Vitamins A (Carrot Juice, Kale and Multi Vitamin) Vitamin E Vitamin C N-acetylcysteine (Cysteplus by Thorne) Turmeric (Turmeric powder bulk by Frontier - add teaspoon in your carrot juice 2x per day) Green tea (Green Tea Extract by Olympian Labs and or Organic Green Tea by Choice Teas) Lycopene (Tomatoes) A-lipoic acid (Lipoic Acid Supreme by Designs for Health, Detox Formula by Vital Nutrients) Flavonoids (Berries and fruits)
Promote the methylation of catechol estrogens (2-OH and 4-OH)	<ul style="list-style-type: none"> Folate (B-Complex or Multi-Vitamin) Vitamins B₂ (Multi-Vitamin) Vitamin B₆ (Multi-Vitamin) Vitamin B₁₂ (Multi-Vitamin) Trimethylglycine (Methyl Guard Plus by Thorne or Methyl CpG by Ortho Molecular) Magnesium (Magnesium Buffered Chelate by Designs for Health)
Increase circulating concentrations of SHBG, thus reducing levels of unbound, active estrogens	<ul style="list-style-type: none"> Fiber (Whole food Diet) Lignans (flaxseed) Flavonoids (chrysin is an herb)
Inhibit the activity of aromatase, which converts into estrogens	<ul style="list-style-type: none"> Lignans (flaxseed) Flavonoids (chrysin is an herb)

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<p>Promote the detoxification of estrogens by upregulating Phase I and Phase II enzymes</p>	<ul style="list-style-type: none"> • Turmeric (Turmeric powder bulk by Frontier - add teaspoon in your carrot juice 2x per day) • Curcumin (Curcumin by Protocol for Life Balance) • D-limonene (from citrus fruit) • Magnesium (Magnesium Buffered Chelate by Designs for Health) • Vitamins B₂ (Multi-Vitamin) • Vitamin B₆ (Multi-Vitamin) • Vitamin B₁₂ (Multi-Vitamin) • Flavonoids
<p>Inhibit the activity of β-glucuronidase, which deconjugates estrogens in the large intestine, allowing them to be reabsorbed and re-metabolized</p>	<ul style="list-style-type: none"> • Fiber (Whole Foods Diet) • Probiotics: acidophilus, bifidobacteria (OrthoBiotic by Ortho Molecular) • Calcium D-Glucarate (Calcium D-Glucarate by Thorne)
<p>Modify estrogen receptor activity</p>	<ul style="list-style-type: none"> • Isoflavones (soy, kudzu) • Lignans (flaxseed) • Indole-3-carbinol (I3C Plus by Health Products, Indole-3-Carbinol by Thorne) • Resveratrol (Resveratrol by Protocol for Life Balance)