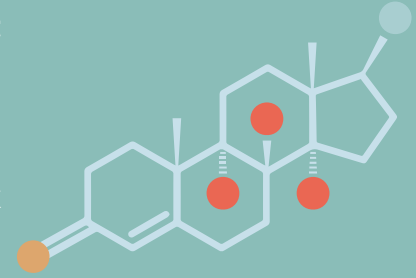


Sex Hormone Binding Globulin (SHBG)

Sex hormone-binding globulin (SHBG) is a protein that attaches to sex hormones, such as testosterone and estrogen, in the bloodstream, aiding in their transportation into tissues to perform their functions. Therefore, SHBG serves a crucial role in maintaining the balance of sex hormones within the body.



When hormones attach to SHBG, they become inactive. Elevated levels of SHBG in the body can result in higher levels of bound testosterone, as SHBG has a greater affinity for testosterone than estrogen. This may manifest in symptoms typical of testosterone deficiency, such as fatigue, reduced libido, weight gain, mood swings, decreased muscle mass, and diminished bone density.

Conversely, low SHBG levels mean there is insufficient binding capacity to maintain sex hormones within the optimal range. Consequently, this can lead to elevated levels

of free testosterone and estrogen, resulting in symptoms like hair loss, acne, and fluid retention.

Various health conditions can influence SHBG levels in the body. To address fluctuations in SHBG levels, your healthcare provider may offer specific recommendations. The table below outlines common health conditions associated with elevated or reduced SHBG levels, along with corresponding suggestions for management. Consult your Functional Medicine practitioner before implementing any interventions.

Increases SHBG		Decreases SHBG	
Health Conditions	Medications and Supplements:	Health Conditions	Medications and Supplements:
Aging	Anticonvulsants	Diabetes mellitus (Type 2)	EPA/DHA
Cirrhosis	Exogenous estrogens	Hypothyroidism	Glucocorticoids
Hepatitis	Vitamin D	Metabolic syndrome	Stinging nettle (Urtica dioica)
Hyperthyroidism	Diet and Nutrition:	Nephrotic syndrome	Whey protein
HIV	Low-fat diet	Obesity	
Pregnacy	Low-protein (vegetarian) diet	Hormones	
		Androgens	
		IGF-1 and growth hormone	
		Insulin	
		Progesterone	
		Prolactin	

