

ASCLS Mission:

The mission of ASCLS is to make a positive impact in health care through leadership that will assure excellence in the practice of laboratory medicine.



For more information about these and other laboratory tests visit the *Lab Tests Online* website:

<https://labtestsonline.org/>

For more information about herb-drug interactions and potential side effects visit the *National Center for Complementary and Integrative Health* website:

<https://nccih.nih.gov/health/herbsataglance.htm>

**Your Safety and Service Experience
Are Important To Us!**

Laboratory Patient Safety Tips:

What Common Substances Can Affect Your Laboratory Test Results?



Why is this information IMPORTANT for YOU and YOUR SAFE care?

- Both prescription medications and over-the-counter (OTC) health supplements, caffeine, and nicotine can cause your laboratory test results to be incorrect (false increase, false decrease, false positive, or false negative).
- Incorrect laboratory results can lead to diagnosis and treatment errors that could harm you.
- Prior to any laboratory testing, it is very important to tell your healthcare provider all prescription medications and OTC substances, including multi-vitamins, you are taking even if they are not listed in this brochure.

Test Abbreviations

ACE: angiotensin-converting enzyme
AST: aspartate aminotransferase
ALT: alanine aminotransferase
CEA: Carcinoembryonic antigen
DHEA-S: dehydroepiandrosterone sulfate
Free T3: free triiodothyronine
Free T4: free thyroxine
FSH: follicle-stimulating hormone
HBcAb: hepatitis B core antibody
HBsAb: hepatitis B surface antibody
HBsAg: hepatitis B surface antigen
HCV Ab: hepatitis C antibody
HCG: human chorionic gonadotropin
IgE: immunoglobulin E
IgM: immunoglobulin M
INR: international normalized ratio
LH: luteinizing hormone
PSA: prostate-specific antigen
PT: prothrombin time
PTH: parathyroid hormone
SAT: stool antigen test (*Helicobacter pylori*)
TIBC: total iron-binding capacity
TSH: thyroid stimulating hormone
UBT: C-urea breath test

OVER-THE-COUNTER (OTC) SUBSTANCES

OTC Substance	Laboratory Test Potentially Affected
Biotin (Vitamin B7) <i>Sources of biotin naturally occur in foods and can be found in multi-vitamin, B-complex, and biotin only supplements.</i>	<u>False Mild Increase:</u> Free T4, FreeT3, Testosterone, Estradiol, Cortisol, IgE <u>False Moderate Decrease:</u> TSH, FSH, LH, Insulin, Autoantibodies, Vitamin B12, Folate, Vitamin D, PSA, CEA, HCG, PTH, Thyroglobulin, Ferritin, DHEA-S, Hepatitis A IgM, HBsAg, HBsAb, HbCAb, HCV Ab
Herbal Supplements	
Chan Su Lu-Shen-Wan Dan Shen "Cleansing" Herbal Supplements	<u>False Mild Increase:</u> Digoxin
Kava-Kava	<u>False Mild Increase:</u> AST, ALT, Bilirubin
St. John's Wort	<u>False Mild Decrease:</u> Theophylline, Digoxin
Caffeine	<u>False Mild Increase:</u> Metanephrines
Others	
Nicotine	<u>False Mild Increase:</u> Fatty Acids, Aldosterone, Cortisol, Tumor Markers, ACE

PRESCRIPTION MEDICATIONS

Prescription Medications	Laboratory Test Potentially Affected
Amiodarone Cotrimoxazole Daptomycin Erythromycin Omeprazole NSAIDS, Propranolol Telavancin	<u>False Mild Increase:</u> PT and INR
High-dose glucocorticoids Dopamine/ Dobutamine Octreotide	<u>False Mild Decrease:</u> TSH
Ciprofloxacin Chloroquinine Quinine	<u>False Mild Increase:</u> Urine Protein
Cephalosporin	<u>False Positive:</u> Urine Glucose Urine Ketone Direct Coombs Test
Psychotropic Drugs (Xanax, Valium, clozapine, chlorpromazine, sertraline)	<u>False Positive:</u> Pregnancy Tests Drug Screening
Proton Pump Inhibitors (PPI) Prilosec, Prevacid, Yosprala, Dexilent, Aciphex, Protonix, Nexium, Vimovo, Zegerid	<u>False Negative:</u> UBT SAT <u>False Positive:</u> UBT (long-term use)

