



Medication Monitoring

Some of the medications you take may require some routine blood tests. This laboratory monitoring is recommended for some medications for a few different reasons.

Narrow Therapeutic Index: Certain medications require close monitoring because the amount of the medication in the blood has a small range in which it is effective and safe. If the blood concentration gets too high, it can become toxic and cause harm. It can be challenging to keep the dosage exactly right for these “narrow therapeutic index” medications because they are often taken for a long period of time and many factors can change the blood concentration including: other medications, new illnesses, other chronic medical conditions, pregnancy, the time of day you take the medication, declines in liver and kidney function as you get older, and others. As a result, you should have your blood level checked from time to time to see if a dose adjustment is necessary. A few examples of “narrow therapeutic index” medications include digoxin, lithium, phenytoin, theophylline, carbamazepine and warfarin.

Medication Side Effects: Some medications require laboratory monitoring to measure the effects on your body, including your liver, kidneys, blood, and electrolytes. For example, some blood pressure medications can increase or decrease your potassium levels, so your doctor will do lab work to make sure these levels stay normal.

Effectiveness: Other medications require laboratory monitoring to measure how well the medication is working. For example, patients taking a cholesterol lowering medication will have laboratory monitoring done to measure the level of cholesterol in your body and to make sure you are meeting cholesterol goals.

Depending on your lab results, your medication may need to be discontinued or your dose adjusted. It is important to discuss your medications with your doctor to determine if you are taking medications that need laboratory monitoring and be sure to follow-up with your doctor after the labs are complete.

Below is a chart that provides some of the medications that commonly require monitoring. Keep in mind this chart is not all inclusive.

Drug Category or Drug	Example of Drugs	Common Treatment Use(s)
ACE inhibitors ARB's	lisinopril, ramipril, moexipril, quinapril, fosinopril losartan, irbesartan, valsartan, Benicar, Micardis	High Blood Pressure
Antiarrhythmics	amiodarone, flecainide, mexiletine	Heart arrhythmias
Antiepileptics / Anticonvulsants	carbamazepine, felbamate, ethosuximide, phenytoin, phenobarbital, valproic acid, zonisamide	Prevent Seizures
Bronchodilator	Uniphyl , Theo-Dur, Theo-24, theophylline	COPD Asthma
Diuretics	hydrochlorothiazide, bumetanide, furosemide, torsemide, spironolactone	High Blood Pressure Heart Failure
Digoxin	Lanoxin, digoxin, digitek	Heart Failure Atrial Fibrillation
Lithium	Lithobid, lithium	Bipolar Disorder
Niacin	Niaspan, OTC niacin	Lower cholesterol levels
Thyroid Replacement	Synthroid, levothyroxine, Armour Thyroid	Hypothyroidism
Statins	simvastatin, lovastatin, pravastatin, atorvastatin, Crestor	Lower cholesterol levels
Anticoagulant	Coumadin, warfarin	Prevent blood clots