

Sanford Pharmacogenetic Panel: List of Medications

The following is a list of medications that are linked to the genes we test through the Sanford Medical Genetic Laboratory. This test will evaluate the way your body breaks down these medications. The way your body breaks down a medication is influenced by your genetic makeup. A change in your genetic makeup can cause you to experience a treatment failure or to experience an increase in side effects.

Medication Name	Use of the medication	Genes Tested for Each Medication
Amitriptyline (Elavil®)	Depression, nerve pain	<i>CYP2C19, CYP2D6</i>
Azathioprine (Imuran®)	Crohn's disease, lupus	<i>TPMT</i>
Capecitabine (Xeloda®)	Cancers	<i>DPYD</i>
Citalopram (Celexa®)	Depression	<i>CYP2C19</i>
Clomipramine (Anafranil®)	Depression, nerve pain	<i>CYP2C19, CYP2D6</i>
Clopidogrel (Plavix®)	Clotting disorders	<i>CYP2C19</i>
Codeine (Tylenol with codeine, Fiorinal with codeine, Phenergan with codeine)	Pain, cough	<i>CYP2D6</i>
Desipramine (Norpramin®)	Depression, nerve pain	<i>CYP2D6</i>
Doxepin (Silenor®)	Depression, nerve pain	<i>CYP2C19, CYP2D6</i>
Escitalopram (Lexapro®)	Depression	<i>CYP2C19</i>
Fluorouracil (Adrucil®)	Cancers	<i>DPYD</i>
Fluvoxamine (Luvox®)	Depression	<i>CYP2D6</i>
Imipramine (Tofranil®)	Depression, nerve pain	<i>CYP2C19, CYP2D6</i>
Mercaptopurine (Purixan®)	Cancers	<i>TPMT</i>
Nortriptyline (Pamelor®)	Depression, nerve pain	<i>CYP2D6</i>
Ondansetron (Zofran®)	Vomiting	<i>CYP2D6</i>
Paroxetine (Paxil®)	Depression	<i>CYP2D6</i>
Sertraline (Zoloft®)	Depression	<i>CYP2C19</i>
Simvastatin (Zocor®)	High cholesterol	<i>SLCO1B1</i>
Tacrolimus (Prograf®)	Organ transplant	<i>CYP3A5</i>
Thioguanine (Tabloid®)	Cancers	<i>TPMT</i>
Tramadol (Ultram®)	Pain	<i>CYP2D6</i>
Trimipramine (Surmontil®)	Depression, nerve pain	<i>CYP2C19, CYP2D6</i>
Voriconazole (Vfend®)	Fungal infections	<i>CYP2C19</i>
Warfarin (Coumadin®, Jantoven®)	Clotting disorders	<i>CYP2C9, VKORC1</i>

