# Pharmacogenetics and You
## Fact Sheet

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## Pharmacogenetics (far ma-ko-jen-et iks)

Pharmacogenetics is defined as the study of how heredity affects your response to certain drugs you are taking. It is about your genes, your identity and your drug response.

The FDA (Food and Drug Administration) requires genetic information to be on the labels for almost 200 prescription drugs. Some of these include common medications like antidepressants, blood thinners, and pain medications. Having your genetic information about how your body processes medications can:

- Help your doctor find the **right** medication sooner

- Help **reduce** medication side effects

Sanford Health offers a complete set of genetic blood tests that can provide your doctor with this information. After you have this genetic test, the results are available in your medical record. If your doctor prescribes a medication affected by your genetic information, the electronic medical record will help them change the dose or find a different medicine.

## What is Personalized Medicine?

Personalized medicine helps to define the best therapy and the right dose for your illness. A simple blood test may define which medicine will work best for you.

- This test is fast and accurate.

- This blood sample will be tested to find out how your body processes medication.

- This information is important because how well your body processes medication will determine how effective the medication will be in treating your condition.

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## Finding The Right Drug For The Right Person

Genetic testing may help doctors develop a treatment plan specific for you.

For some medications, the results of your genetic test may help your doctor decide:

- The specific medication you need
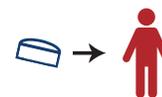
- The dose of medication you need

## The Best Treatment



Patient A may see best results with **2 tablets** of a medication.



Another person, Patient B may only need **1 tablet** for their treatment.



A third person, Patient C will only need **one-half of a tablet** of this same medication.



A different person, Patient D, may need to take a **different drug** to see the same benefits as the previous 3 patients.