

We have over 20,000 different genes in the body. These genes are like instruction manuals for how to build a protein, and each protein has an important function that helps to keep our body working how it should. Some of these proteins play an important part in how our body processes different types of medications, called our metabolism. The study of how our genes influence our body's metabolism of different medications is called pharmacogenetics, or pharmacogenomics (PGx). It is important to note that in most instances, genes alone do not determine how someone's body will metabolize substances. Genetics along with environmental factors and other coexisting health issues also influence how our bodies react to medications.

There are some notable exceptions where having an underlying genetic change (called a mutation) can more significantly impact how someone will respond to certain medications:

- Malignant Hyperthermia