

Scott & White: Understanding DNA Testing

What is DNA?

- ❖ DNA stands for deoxyribonucleic acid. DNA is the genetic material that tells your body how to grow and develop. DNA is passed from parent to child.

What is DNA testing?

- ❖ DNA testing involves examining DNA to help diagnose or predict genetic disease. There are several different methods of DNA testing.
- ❖ In most cases, DNA testing looks for a change, or mutation, in the gene of interest.
- ❖ Another method, called linkage analysis, studies different family members all at once and tries to identify variations in the DNA that will predict carrier status.

What kind of sample is needed and is there any special preparation necessary for the testing?

- ❖ Usually a blood sample is used for DNA testing.
- ❖ Sometimes a cheek swab will be used to take some of the cells from the inside of your cheek.
- ❖ DNA testing can also be performed on amniotic fluid.
- ❖ No special preparations such as fasting are necessary.

Why is informed consent required for DNA testing?

- ❖ DNA testing results can have different implications than other kinds of medical testing.
- ❖ Sometimes, DNA testing is performed pre-symptomatically and the results can have an impact on your future health.
- ❖ Also, DNA testing results can impact your health as well as the health of your family members.

Can I be discriminated against because of my DNA testing results?

- ❖ There are laws stating that employers and group health plans cannot use DNA testing results against individuals.
- ❖ However, there are not legal protections at this time for other types of insurance such as life insurance.

What are some of the reasons to undergo DNA testing?

- ❖ DNA testing can sometimes help doctors make a diagnosis.
- ❖ DNA testing results can help you prepare for the future.

What are some of the reasons NOT to undergo DNA testing?

- ❖ Detection rates are not always 100%, meaning that you could be tested for a disorder, receive a negative result, and still have that disorder or be at risk of developing that disorder.
- ❖ DNA testing can be expensive and your insurance may not cover the cost.

What happens if my DNA test comes back positive?

- ❖ Your doctor will explain your test results to you. He or she might also refer you to a genetic counselor to discuss the results in more detail.

If you have any other questions, please ask your doctor or request to speak with a genetic counselor.