



Hereditary Non Polyposis Colorectal Cancer (HNPCC)

HNPCC is inherited disorder with an 80% chance of gene carriers developing a cancer in their lifetime. HNPCC accounts for approximately 5% of all colorectal cancers. The disorder is recognized by early onset of cancer (ave, 44 years)

HNPCC Colon Cancer is suspected when the following criteria are met, (Amsterdam criteria):

- 3 relatives affected colon cancer
- 2 successive generations.
- 1 cancer developing at < 50 years

If you inherited the HNPCC gene, you would have a high (but not 100%) risk of developing certain cancers at some stage of your life. If this did happen, it would most probably be bowel cancer. Not all people who carry the abnormal gene develop cancer. The chance of colon cancer by age 65 is about 80%.

Most HNPCC patients develop colon cancer, but other cancers seen in this condition include cancer of the uterus, ovary, stomach, kidneys and urinary tract, central nervous system, bile duct and gallbladder, and small bowel

HNPCC is a familial condition, which means it runs in families. It is caused by a gene, or more correctly by a change in a gene. Our genes carry the instructions that control how our bodies grow, develop and work. There are in fact 4 genes connected to HNPCC and normally these genes are involved in preventing cancers from occurring. Everybody has these genes, but if a person has a change in one of these genes, they have an increased chance of developing certain cancers. Once this gene change has occurred, it can be passed from parent to child.

HNPCC is inherited in what we call a dominant fashion. As genes come in pairs, people with HNPCC have one altered copy of the gene and one normal copy of the gene. When they have children they can only pass on one copy of the gene. So any children of a person with HNPCC would have a 50/50 chance that they inherited *either* the HNPCC gene, or the normal gene.

How can we tell if you have HNPCC or not?

If you inherited the normal gene, then firstly your risk of bowel cancer (and other cancers) would be reduced to that of the general population of about 6% in your lifetime. Secondly, the abnormal gene cannot be passed on to your children.

Testing can be performed to assess whether or not you and other seemingly unaffected family members are carrying the HNPCC gene. Testing for this gene may affect your ability to obtain life and income protection insurance.

If the gene is detected, a colonoscopy is recommended EVERY 12 months. Females should also have ANNUAL transvaginal Ultrasound or endometrial aspirates (uterine cell sampling) and a tumour marker called CA 125 from 25y

If you do not carry the gene a colonoscopy is advised EVERY 5 years, or more frequently if polyps are detected.