

Hepatitis C Genotypes

Viruses like hepatitis C are microscopic in size and are so small that around 30 billion of them would fit on a full stop. Although it is much easier to speak of the hepatitis C virus as if it were a single organism, in fact it is a group of viruses similar enough to be called hepatitis C, yet different enough to be classified into groups.

- Subgroups of the hepatitis C virus are called genotypes. Identifying which genotype a person has is determined by a blood test
- Evidence indicates that it is possible to be infected with multiple hepatitis C genotypes. Having one genotype does not give immunity from contracting another genotype.

There is some evidence to say that specific genotypes are associated with an increased risk for liver disease and liver cancer, higher viral loads and increased likelihood of developing chronic hepatitis C. However it is likely that this evidence is confounded by factors such as alcohol intake or length of infection and it has not been proven that genotypes have an influence on disease progression.

Genotypes

Several identifiable 'families' or genotypes of the hepatitis C virus have been observed around the world, each

differing slightly from the other in their genetic makeup. Genetic makeup is the most commonly used classification system and lists these 'families' as HCV genotype 1, 2, 3 etc. In different areas, different genotypes are more or less prevalent.

Subtypes

Within each genotype, differences between viruses exist. These variations are too small to be seen as a new genotype, but significant enough to be measurable, thus making the term subtype applicable. These lesser classifications are described as HCV subtype 1a or 1b, 2a or 2b etc.

Common genotypes

Genotypes 1 and 3 are the most common in Australia. Approximately 50-55% of people with chronic hepatitis C have genotype 1 and around 35-40% have genotype 3. The rest are distributed among the remaining genotypes.

Genotypes and treatment

Before you start treatment you will have a blood test to determine which genotype you have. This is important because it helps determine which medication is most suitable for you and how long you will need to take it for.

All genotypes can be treated with the new direct acting antiviral (DAA) drugs, however which ones you take are dependent on your genotype (among other things).

For example, genotype one is usually treated with Harvoni®, while genotype 3 is may be treated with Solvadi® and/or Daklinza®. There are now also 'pan-genotypic' medications such as Epclusa® and Maviret®. These are medications that can be used for all genotypes.

Your doctor will decide which medication is best for you.

All genotypes have a 95% success rate with the new DAA treatments.

Treatment is considered successful when the virus cannot be detected in the blood immediately after therapy is completed, and then for three months afterwards. This is called a sustained virological response (SVR).

This info sheet is intended as a general guide only. It is not intended to replace expert or medical advice.

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