

# HEPATITIS C: GENOTYPES

## WHAT IS A GENOTYPE?

A genotype is a complete set of genes that make-up a cell, organism, or individual.<sup>1</sup> For hepatitis C, several genotypes have been identified. Ascertaining the specific hepatitis C genotype helps determine treatment recommendations options for patients.<sup>2</sup>

## THE DIFFERENT GENOTYPES

Currently six major hepatitis C genotypes (GT1-6) and a large number of subtypes have been identified. In the case of Genotype 1, two different subtypes – 1a and 1b – have been identified.<sup>3</sup>

While different genotypes and subtypes share basic biological and pathogenic features, they differ in terms of response to treatment and epidemiology.<sup>4</sup>

Genotype 1 is the most common type of hepatitis C genotype<sup>3</sup> worldwide, with a higher prevalence of 1b in Europe and 1a in the U.S. It has also historically been considered difficult to treat.<sup>5</sup>

## WORLDWIDE SPREAD OF GENOTYPES



Map coloring represents most prevalent genotype by region<sup>8</sup>

Six major genotypes have been identified and vary in their prevalence throughout the world.<sup>2</sup>

**Genotype 1**, (with subtypes 1a and 1b), is the most prevalent genotype worldwide, with a higher prevalence of 1a in the U.S. and 1b in Europe<sup>3</sup>

**Genotype 2** is the predominant genotype in West Africa and can be found throughout the world<sup>6,7</sup>

**Genotype 3** is endemic to South-East Asia and variably distributed in different countries<sup>7</sup>

**Genotype 4** is principally found in the Middle East, Egypt and Central Africa<sup>7</sup>

**Genotype 5** is almost exclusively found in South Africa<sup>7</sup>

**Genotype 6** is distributed throughout Asia<sup>7</sup>

## IDENTIFYING HEPATITIS C GENOTYPES

A blood test is required to determine the particular hepatitis C virus genotype the patient may have. This only needs to be completed once, as the genotype does not change.<sup>2</sup>

Accurately identifying specific hepatitis C virus genotypes and subtypes is helpful in defining the epidemiology of hepatitis C and in making recommendations regarding treatment.



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