

## Vitamin B12 supplements may help treat hepatitis C

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Adding vitamin B12 to standard hepatitis C virus (HCV) treatment significantly boosts the body's ability to keep the virus at bay, indicates a pilot study published online in the journal *Gut*.

The effects were particularly strong in patients whose infection was proving difficult to treat effectively, the findings showed.

Between 60% and 80% of those infected with the viral <u>liver infection</u> HCV will go on to develop <u>chronic hepatitis</u>, and roughly a third of them will progress to cirrhosis and terminal <u>liver disease</u>.

Standard treatment of interferon (peg IFN) and <u>ribavarin</u> clears the virus in about 50% of patients infected with <u>genotype</u> 1 HCV and 80% of those infected with genotypes 2 or 3.

But this approach fails to clear the virus in around half of all those infected with HCV or the infection returns once treatment stops.

While trials of new generation <u>antiviral drugs</u> show promise, they are expensive, and can make treatment more difficult. And questions still remain about how well they will work in practice, say the authors.

Experimental research dating back a decade suggests that vitamin B12 may have a role in suppressing HCV. The liver is the body's primary storage centre for vitamin B12, but this capacity is impaired by diseases directly affecting the organ.



The researchers therefore wanted to see if adding vitamin B12 to standard treatment would make a difference.

Ninety four patients with HCV infection were randomly allocated to receive standard treatment or standard treatment plus vitamin B12 (5000 ug every 4 weeks) for between 24 (genotypes 2 and 3) and 48 weeks (genotype 1).

The body's ability to clear the virus was assessed after 4 weeks (rapid viral response), after 12 weeks (complete early viral response), at the end of treatment and at 24 weeks after stopping treatment (sustained viral response).

There was no difference between the two treatment approaches at 4 weeks, but there were significant differences in response at all the other time points, particularly 24 weeks after stopping treatment, which is the aim of HCV treatment and the closest it can be get to a cure.

The effects were also significantly greater among those who carried the type 1 strain, which is particularly hard to treat, and those high levels of infection (high viral load) to begin with.

Overall, adding vitamin B12 to standard therapy strengthened the rate of sustained viral response by 34%, the findings showed.

The authors conclude that until clear eligibility criteria for treatment with the new generation antiviral drugs are established, standard treatment plus <u>vitamin B12</u> is a safe and inexpensive alternative, particularly for those who carry a strain of the virus that is hard to treat.

They add: "This strategy would be especially useful in those countries where, owing to limited economic means, the new generation antiviral therapies cannot be given in routine practice."



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