

# Neuro-psychiatric symptoms

At our meetings in August, we talked about the neuro-psychiatric symptoms associated with Vitamin B12 deficiency.

We want you to stay safe, which for most people with B12 deficiency means staying in your home and avoiding infection. However we know that means that you can't come to a monthly meeting, so we're trying to bring the meetings to you.

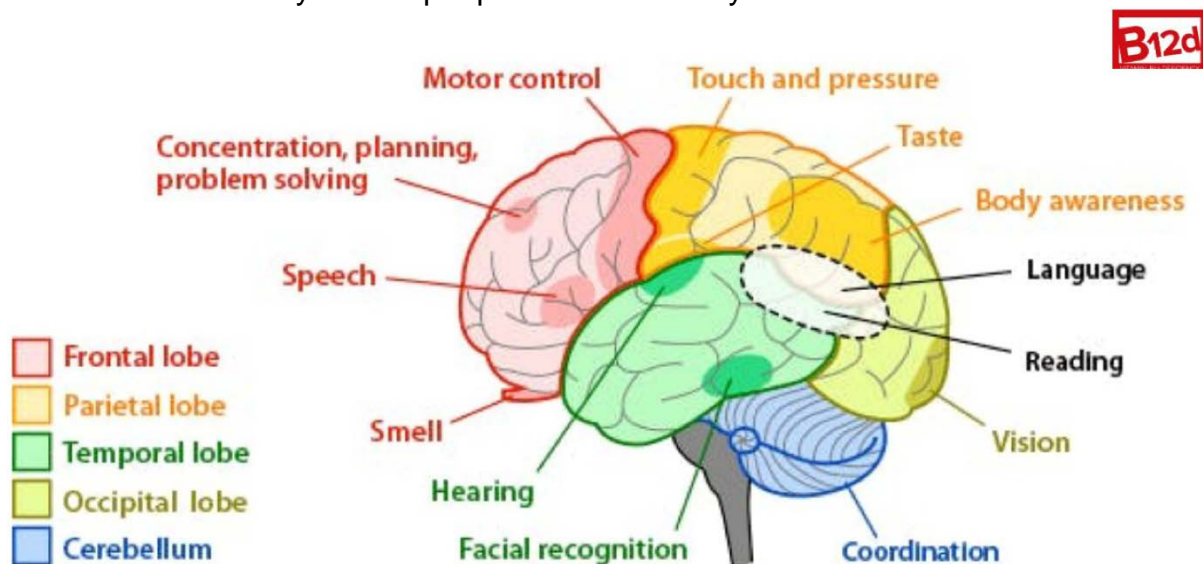
Our coffee mornings are held in UK on the second Tuesday of the month, and online they are at 10:30 in the morning. Because of the number of members from North America, we're adding another meeting on the Monday before - lunchtime in USA and evening in UK. We had people from UK, France, Canada and USA on the last call.

To join the meeting, please check the meeting details in the timetable on the last page and join us via a Zoom call. Note we use Mentimeter to interact with you, which runs on a different screen. Many people join in the zoom call on tablet or computer, and join Mentimeter using a mobile phone. The main alternative is to open a second browser window and link to Mentimeter on that.

The coffee mornings are listed on the back page

## What did we learn about at the meeting?

1. B12 is vital for five different body systems (Dr Chandy's book Figure 1-1)
2. B12 deficiency affects people in different ways



### How your brain works

3. There's a lot going on in the brain, so there's also a lot that can go wrong

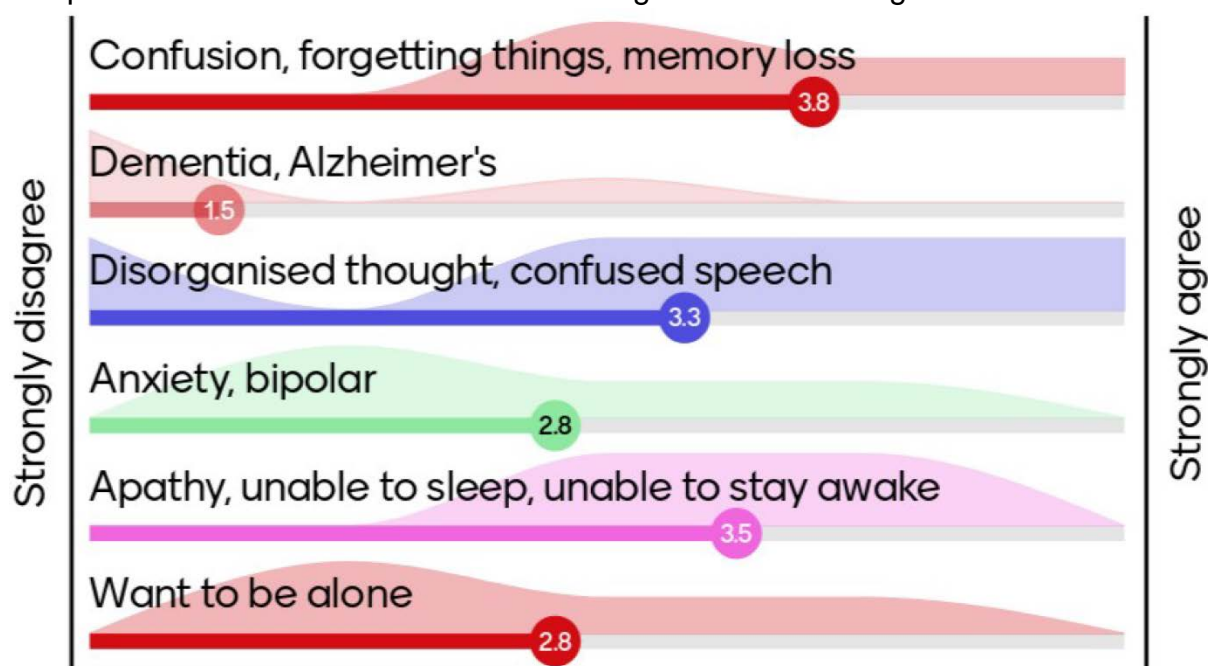
The brain works a bit like a computer. There are lots of "wires" (nerve axons) going everywhere. Vitamin B12 is vital to ensure that the right signal ends up in the right place – that the insulation works on all of these axons. If the insulation is worn away (which frequently happens with B12 deficiency), then a thing called "cross-talk"

happens (see diagram in Dr Chandy’s book – Chapter 8 Figure 8-3, page 201) where signals turn up in the wrong place.

This affects your movement and muscles (loss of power, twitches and spasms); it affects your senses (numbness, pins & needles, phantom pains); and it can give you strange thoughts: tiredness and depression, psychoses (phantom voices or flashes of light or even images that aren’t there, strange tastes and smells), the fogs, memory problems).

Common neuro-psychiatric symptoms include:

Responses from our audience at the two August Zoom meetings.



Harrison’s “Principles of Internal Medicine” 2018

Doctors sometimes struggle to decide what was the cause of a psychiatric disturbance – they nearly always assume that it’s to do with some life trauma like a bereavement or other stress. But if there’s no obvious trauma, it may simply, really, be nutrition – or rather lack of it.

“Psychiatric disturbance... is common in both folate and cobalamin deficiencies. ... failure of SAM ... needed in methylation of biogenic amines

B12 is needed to convert homocysteine into SAMe

Homocysteine is an important chemical. It is the start of the methionine pathway, which is one of the important Sulphur-containing amino acids (which make a whole lot of important proteins).

There’s a down side to homocysteine. If it accumulates (in other words, if it doesn’t get used in that pathway to make methionine and all of the S-containing amino

acids), then high levels of homocysteine result in heart disease, arterial sclerosis, and depression. The lumpy skin that some people experience with B12 deficiency may be nodules of fat containing very high concentrations of homocysteine.

Vitamin B12 is one of the cofactors needed to convert homocysteine. Homocysteine gets moved to methionine, and on to SAME (S-adenosyl-methionine) which is a “feel good” substance. So B12 does make you feel good – it isn’t just imagination!

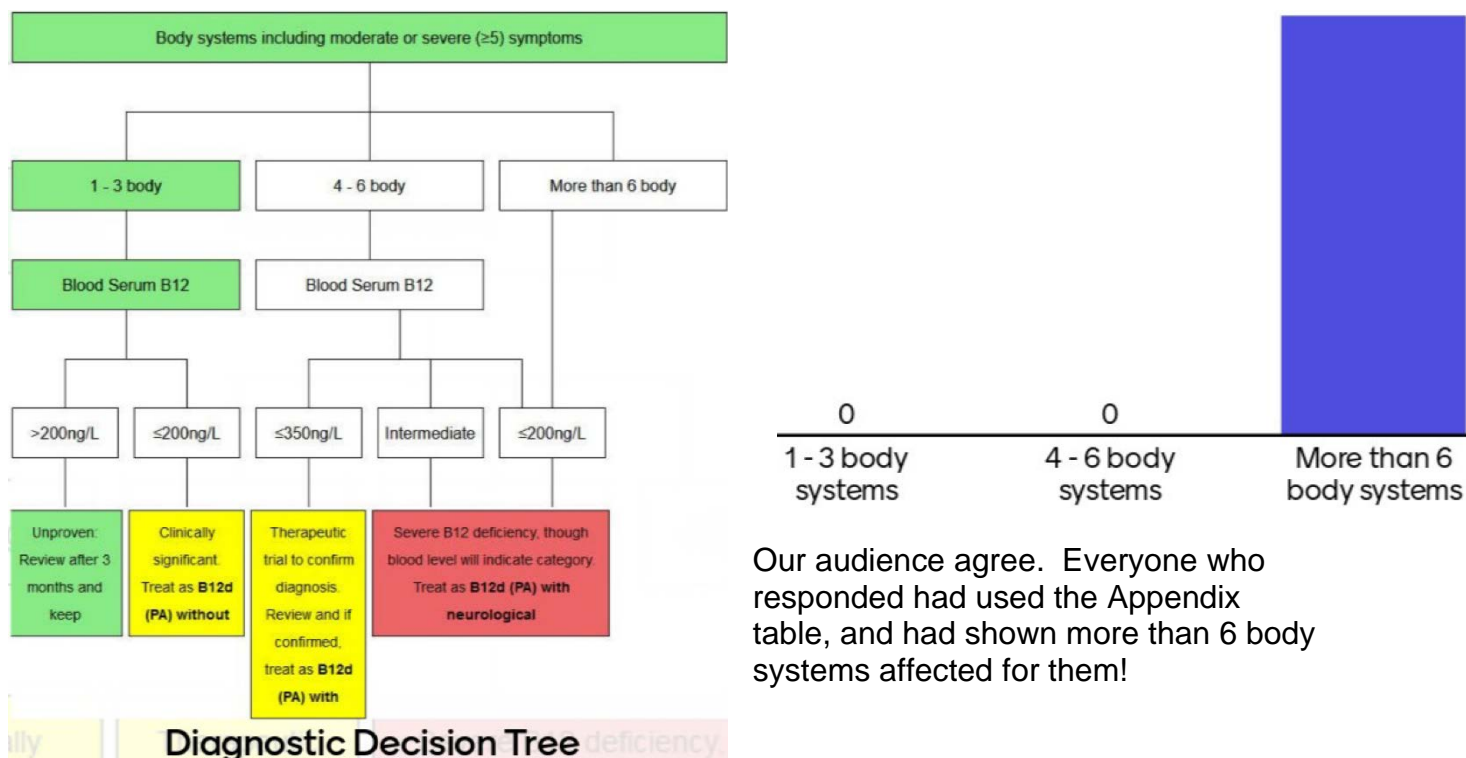
### Making a diagnosis of Vitamin B12 deficiency

Dr Chandy was very stringent when making diagnoses of Vitamin B12 deficiency.

He listed the possible symptoms in a “1 minute diagnostic” (see book, appendix A). The symptoms were all listed under the body system they were connected with, so although you could have a lot of symptoms (for example, numbness, loss of power, pins-and-needles), they were all within a single body system so they only counted as one.

You score the symptoms on a scale of 1 to 10, where 10 is that it seriously impacts your life and is there all the time, and 5 is where you notice it every day and it makes you change the way you do things. Only symptoms with a score of 5 or more count in this test.

Then he counted up the body systems. As you can see from the chart below, the blood test isn’t actually that important once you take everything else into account.



Our audience agree. Everyone who responded had used the Appendix table, and had shown more than 6 body systems affected for them!

## B12 coffee mornings

You can download the protocol for diagnosis and treatment <http://www.b12d.org/protocoltreatment>. You can check symptoms (symptoms checker <http://www.b12d.org/admin/healthcheck/diagnosticcalculator>) and symptoms diary.

And of course email [notifications@b12d.org](mailto:notifications@b12d.org).

The coffee mornings are a chance for you to meet other people who also understand this condition, and talk.

## How else can you keep in touch?

We're connected to three **Facebook** groups. Our main one is **B12 Deficiency - Functional, Neurological & Autoimmune**, and this is a good place to meet people (don't ask for personal medical advice).



## Coffee Meetings via Zoom

USA Daytime, UK and Europe evening	Monday 7 Sept 2020, 7:00pm BST – 8:30pm	<a href="https://us02web.zoom.us/j/83947903128">https://us02web.zoom.us/j/83947903128</a>
UK & Europe morning, also Africa, Middle East, India and Far East, Russia	Tuesday 8 Sept 2020, 10:30am BST – 12 noon	<a href="https://us02web.zoom.us/j/83947903128">https://us02web.zoom.us/j/83947903128</a>

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