

## What is Microbial Identification?

DNA sequencing of the 16S ribosomal gene enables the detection of all bacterial kingdoms within a sample.

The information from your sample is then compared to a curated sequence database which contains only microbial sequences.

The bacteria are then screened to the genus and species level.



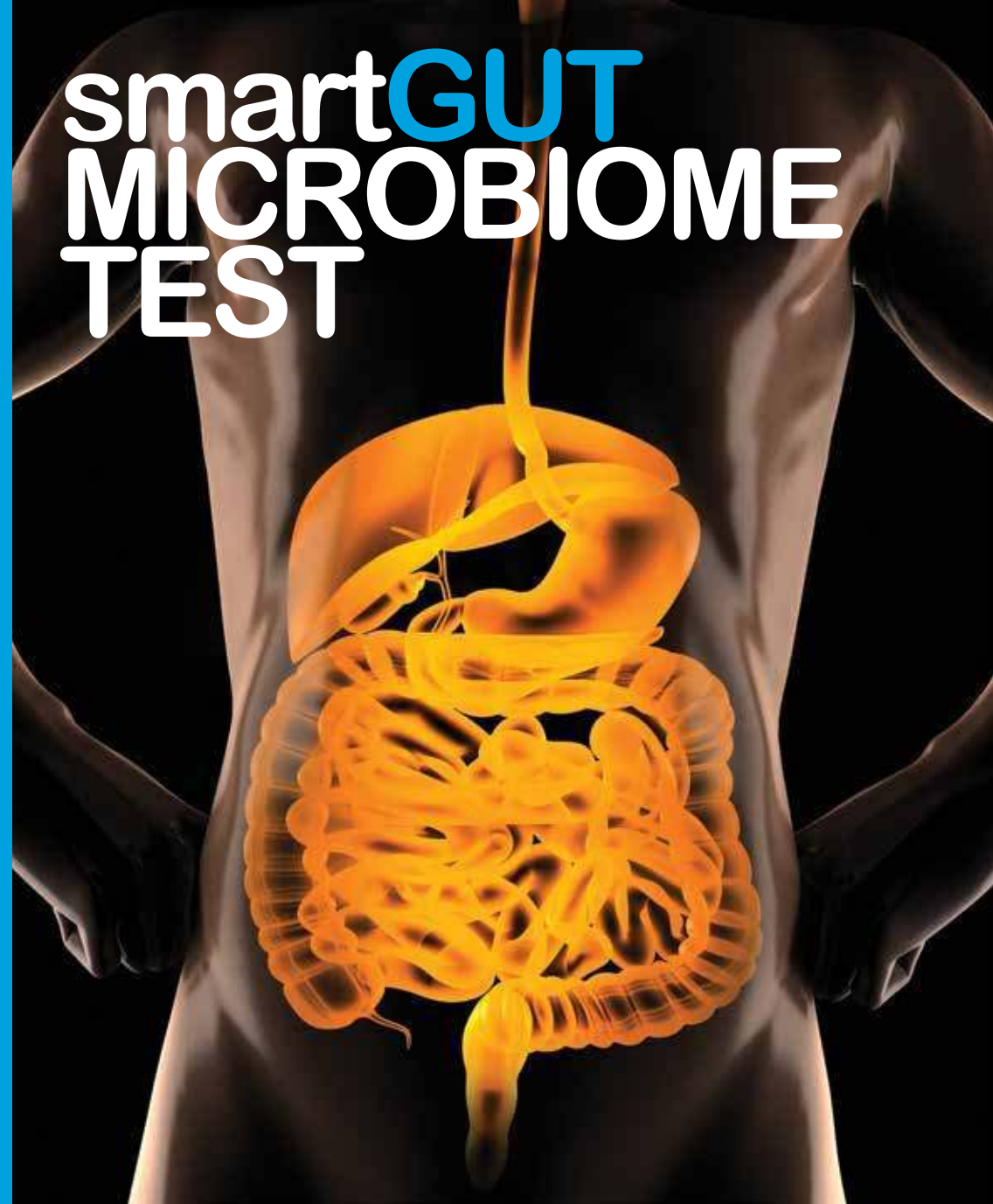
## do you have.....

Bloating  
Diarrhoea  
Chronic Fatigue  
Depression

Weight gain  
Skin conditions  
Rheumatoid arthritis  
Autism

Practitioners are able to use this information to understand how your diet and environment could be affecting your bowel flora and health in general.

# smartGUT MICROBIOME TEST



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# what is the smartGUT MICROBIOME TEST?

The bacteria present in our gut, mouth, skin and other sites in the human body are often referred to collectively as the human Microbiome or “second genome”. Composed of more than a 100 trillion microorganisms the human microbiome outnumbers the total number of human genes by a factor of a hundred to one.

- *THIS MEANS;*  
FOR EVERY GENE IN YOUR GENOME  
THERE ARE **100 BACTERIAL GENES**

Genomic technology now has the capacity to view this second genome by sequencing specific targets known as variable regions in the bacterial genome. It is these variable regions that enable bacteria to be identified down to species level. Each bacterial species has a unique “finger print”. This means that the analysis is similar to a crime scene investigation. If the sequence is detected then that particular bacteria is present in your gut.

## why are the bacteria in my gut important?

Bacteria perform essential functions such as digesting food and synthesising vitamins. Recent studies have also linked the microbiome to human mood and behaviour via the gut-brain axis, as well as many gut disorders, weight gain, eczema, and chronic sinusitis.

# how to order a smartGUT MICROBIOME TEST

1. Contact your Practitioner.
2. The **smartGUT** test can only be ordered by an accredited Healthcare Practitioner.
3. Pay for the test.
4. You will be provided with a collection kit.
5. Sample Your Faecal Microbiome.
6. Send the kit back to the laboratory.

### WHAT HAPPENS IN THE LABORATORY?

- 1. Extract DNA and Sequence:** The bacterial DNA is extracted from your sample and we obtain a fingerprint signature of the bacteria in your sample.
- 2. Analyse:** The bacterial ‘fingerprints’ are compared to our curated bacterial reference library to determine which bacteria they came from.
- 3. Compile Your Results:** We compare to your results to the other bacterial samples so that you can see the reference ranges and how you compare to others.

## what will this analysis tell me?

- The percentage and types of bacteria in your gut.
- How the bacteria in your gut may be affecting your overall health.
- If any known pathogenic bacteria are present.
- How your diet is affecting your microbiome.