

Digestion starts in the brain

The digestive system is one of the major interfaces between our inner and outer worlds. It is over 100 times larger than the skin and consists of complex reactions and processes that are truly amazing.

Digestion is often a process that we take for granted and assume that it will 'sort itself out'. It is often not something that we reflect on nor may much attention to unless something goes wrong.

The digestive system

The digestive system is made up of a collection of different organs, all of which have a role to play in the processes of digestion and/or absorption. The organs that make up the digestive system can be divided into two groups: the organs of the gastrointestinal tract (e.g. the stomach and large intestine) and the accessory organs (e.g. the pancreas and liver).

Important considerations about the digestive system

The gastrointestinal tract is essentially a tube that begins at the mouth and ends at the anus, you can think of it as being a bit like a hose or a tunnel that passes through the body. Although it is important to recognise that this is a simplistic way of looking at the digestive system. Basically what happens in the digestive system is that food and drink go in one end of this tube (at the mouth) and as they move along some substances get absorbed into the body, anything that is not digested and absorbed just comes out the other end of the hose (at the anus). There are obviously many chemical and physical reactions that take place to digest your food however to put it simply this is pretty much all that happens!

We are what we digest

As 'we are what we eat', our health and vitality depends to a large extent on how our digestive system functions in providing the building blocks for our physical body. It is not just a matter of *what* you put into your mouth but also *how* it is processed, metabolised and utilised by the body. That said the phrase should more accurately be 'we are what we digest', or 'we are what we assimilate'.

If there is a functional problem in digestion, then regardless of how pure, clean and natural one's diet is it will not be properly absorbed and deficiency will be experienced. These faults may either lie in the eating habits, the content or amount of digestive juices or in a dysfunction of the intestinal walls so that the food is not properly absorbed through the lining of the gut.

Psychological influences to digestion

Whilst we may forget about it, digestion really does start in the brain. There is a constant interplay between the mind and digestion as emotions profoundly influence both the functioning and structure of tissue in the stomach and intestines. There is an immediate response to anger, anxiety, fear and all forms of stress and worry. To approach healing the digestive system holistically, one needs to ensure that these psychological influences are considered and remedied.

Reflection exercise

Consider for a moment how you digest a meal when you are stressed and hurried vs. when you are at a social function with friends, relaxed and having a good time. It is easy to see the difference both in the quantity and quality of food eaten, the taste of the food (or lack thereof), your emotional experience and most importantly how your body digests and assimilates the meal.

As you can see, it is much better to take a few moments out of your busy day to connect to your body and your meal rather than rushing through the process. Not only will you digest the food much better but you'll enjoy the experience and will feel much happier because of it.

Food and energy

It is always important to consider which foods 'give' you energy and which foods 'take' energy to digest. By this I mean there are certain foods that your individual body will digest easily and certain foods that take more of your energy reserves to process and assimilate.

Consider for a moment how you feel when you drink your morning cup of coffee with a biscuit. You might receive an immediate rush of energy and feel good chemicals making the experience a positive one. As this boost of energy wears off, one is often left feeling flat and sluggish. This is often due to the extra burden that has been placed on one's digestive system.

In contrast consider how you feel when you have a glass of fresh vegetable juice bursting with flavour and vitality. The intensity of flavours stimulates your digestive system to work more efficiently and you receive a welcome immediate boost of energy that doesn't wear off but rather increases as your body assimilates and processes the glass of juice. Obviously a much more appealing and rewarding experience!

Timing of digestion

The length of time digestive processes take to occur, from food entering the mouth and the stool leaving the body, is known as the 'transit time' and will vary from one individual to another. Factors that influence transit time include the amount and type of foods eaten, as well as stress, and general health (existing diseases, allergies, infection etc).

To determine your transit time try eating a handful of something indigestible that would be clearly visible in your stool, such as sesame seeds, and see how long it takes to appear!

In an individual with a 24 hour transit time food is estimated to spend up to 3-4 hours in the stomach, up to 7-8 hours in the small intestine, and up to 12-14 hours in the large intestine.

Stool health

The health and function of the digestive system is one of the first factors that is evaluated during a consultation with a naturopath or natural therapist. Not only is the digestive system important for nutrient absorption, but it also appears to have many other roles in supporting the health of other body systems, including the immune system.

It is important to ensure that an individual's digestive system is functioning adequately. If it is not then it is unlikely that many of the treatments used or recommended will be successful. How can we expect a person to be optimally healthy if they cannot digest and absorb the nutrients from their food?

With some substances it is easy to tell if they have been digested and absorbed. For example, if you take a B vitamin supplement and absorb it correctly your urine will change to a bright yellow or yellow-green colour for a short period of time (this is because some of the B vitamins contain yellow dyes).

If the stool is observed it is sometimes possible to see particles of food (commonly corn, seeds etc), this indicates the food was not digested and therefore, the nutrients were not absorbed.

Observing the stool is often not a common practice in our society, however it should be recommended that people get into this habit as changes in the stool can indicate changes in our health.

For example:

- If the stool is 'loose' it could indicate incorrect or imbalanced gut bacteria, infections, or food allergies or intolerances.
- If the stool is 'hard' or 'difficult to pass' it could also indicate imbalanced gut bacteria, or conditions such as dehydration.
- A stool that floats could indicate that the diet is very high in fibre or that fats have not been digested properly and are present in the stool. If fats are present in the stool it may also look shiny and will have a foul odour. Fats in the stool could indicate digestive, liver or pancreatic problems.
- If particles of food are found in the stool it could indicate that food has not been chewed correctly, or that digestion in the small intestine is not occurring correctly.
- The colour of the stool can also be used as an indicator of health. If the stool is pale it could indicate poor liver health, if the stool is unusually dark it could be because you have consumed licorice, charcoal or beetroot, or due to bleeding within the digestive tract.

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