



Your Health is in your Gut

Part 1

by Dr. vet. med Anita Kracke, Naturopath

This article is published in two parts. The first part deals with the tasks of the intestines and the significance of diet, and also with the symbiosis between host and intestinal flora. It discusses possible causes of a dysbiosis, and its treatment.

In the second part, disorders in the shape of intolerances and allergies are described, including treatment with the help of SANUM remedies.

Contrary to the saying: „Death lurks in the gut“, here we present the positive side of this organ, as the support and mediator of our health. However, we have to explore the factors which, militate against intestinal health. In order to understand the context of illnesses or disorders in the body, which have a deleterious effect on intestinal health, it is relevant to take a brief look at the embryological development of the intestines.

Embryology

The intestines are formed from the entoderm, from which the epithelia and glands of the trachea, lungs and bronchi, the mucosa of the sinuses, and the liver and pancreas as glandular appendages of the gut develop through a folding process. Also, the mucous membranes of the Tuba auditiva, of the Cavum tympani, and of the genito-urinary tract are formed from the entodermal germ layer.

Tasks of the digestive tract

For the interpretation and significance of the digestion and the organs involved in it, it will be helpful briefly to list the individual stages.

Mouth: Here, the food is crushed and moistened. In this way, the

distinctions in food are removed. Only once this process is completed, are enzymes and agents released, which also contribute to the breaking down of the components of food. A grain of cereal, for instance, in its dry state can be preserved for thousands of years, without the processes of decomposition setting in. Only when exposed to moisture and light, does it begin to germinate, or else when it is ground down (by mastication) and moistened (by saliva), its inner contents are susceptible to attack and can be broken down.

Solid food is crushed and liquefied by grinding and mixing with saliva, so that the latent, concentrated etheric energies it contains can freely develop. The pH value should optimally be around 6.5, i.e. in the slightly acidic range. An acidic pH value stands for the beginning of the astral energies' action, and these break things down. Already at this point, enzymes intervene, e.g. Ptyalin and substances with an antibiotic action, such as Rhodasid.

Stomach: The food slides down the gullet into the stomach where, in adults, strictly acidic conditions prevail. This is expressed in a pH value of around 1.5. Because of this, the food can become almost sterile. This gastric acid is an expression of the most powerful astral energies. This is seen particularly clearly in the proteins, whose structure is transformed and denaturalised most intensively.

Small intestine: Where it begins, in the duodenum, the milieu is alkaline with a pH value of about 8.0. Everything that has been mechani-

cally or chemically broken down and transformed up to this point, is opened up enzymatically and reabsorbed in the further sections of the small intestine. The more slowly this process and the onward movement take place, the better; the more thorough the mixing with enzymes and the moistening of the large surface of the intestinal wall, the more intensive will be the exchange and absorption at the intestinal mucosa.

The passage through the small intestine physiologically takes between two and ten hours, until the chyme reaches the caecum. The pylorus and Bauhin's valve are synchronised, and thus, the individual sections of the digestive tract pass their contents on in portions. (If, as a result of atrophy of the gastric mucosa, the contrast between the acid chyme of the stomach and the alkaline contents of the small intestine is not great enough, Bauhin's valve remains open, and this results in a repopulation of the small intestine by flora from the large intestine (see Lutz, Pp. 81-82)).

Large intestine: Actually, only substances should reach this stage, which cannot be broken down enzymatically, such as cellulose, hemicellulose, pectin and so on. These uncommonly strong vegetable structures cannot even be dissolved by the living plant, with a view to utilising them in its metabolism. The dietary elements, which get as far as the large intestine, are dead material and must be accessed by the etheric energy of microbes. This is achieved via the enzymes of bacteria, yeasts and fungi. These



micro-organisms live in symbiotic equilibrium from the products of human digestion and from those, which are released via their own dietary fission, also from the decomposed elements of dying mucosal cells. The aerobic ones live close to the human mucosa and from there, they obtain their oxygen supply, which they need in order to survive. In return, these micro-organisms supply the host with short-chain fatty acids, which serve to nourish the mucosa. Calorifically, this can supply a daily energy level of 100 kcal or more. Basically, in the large intestine hardly any nutrients are absorbed, but gases and water-soluble substances such as minerals, acids and vitamins (especially Vitamin K) are taken up by diffusion, as well as water. In line with the microbial activity, the pH value of the intestinal contents shifts from alkaline into the acid range. This acidification of the intestinal contents - resulting from the activity of healthy intestinal flora - also leads to die-off of microbes, and in increased motor activity of the intestine. This in turn promotes the passage of material through the intestine and the elimination of digestive residues which cannot be processed.

Sigmoid, rectum and anus: At the caudal end of the large intestine, a sphincter muscle leads to the sigmoid, which again is limited towards the rectum by a second sphincter. Thus, its original purpose is described: a reservoir for excreta. When it is full, the lower muscular mouth opens, allowing the contents to pass through the rectum and anus. When a solely vegetable diet is being consumed, this process of

evacuation occurs up to four times a day, so that the rectum does not act as a reservoir for stools. This is important, since the venous blood from this intestinal section is not conveyed to the liver via the portal vein for cleansing and detoxification, but passes immediately into the Vena cava and thus, into the body's circulation. Thus, if the rectum becomes a reservoir for stools, as happens in the case of a mixed diet in industrialized society and a mainly sedentary lifestyle, then it is easy for toxins to form as a result of decomposition and fermentation, and their absorption results in the body suffering a toxic overload.

Now that the sections of the intestinal tract have been identified and their functions described, the following questions arise:

1. What does a healthy intestinal tract require in order to guarantee the health of the human being?
2. What are the disruptive factors which allow the gut - and therefore the human being too - to become ill?

On Q. 1.: Assessment of the diet taking Anthroposophical thinking into account

We need living food, which is easily broken down. These requirements are best fulfilled by fruits and seeds; they are closest to the human body's „heat organism“. Ripe fruits are particularly easily digested, because they are already almost „cooked“ when harvested and eaten. In general, it may be said that the more easily spoilt an item of food is, the more rapidly it may be broken

down in the digestive tract. However, it must also be consumed that much more quickly, so that it does not succumb to decay. In anthroposophical thinking, it corresponds to the human Sulphuric system. Such foods include fruits, milk, broken eggs and minced meat.

Food from the leaf area, i.e. the centre of the plant, is harder to digest; it is part of the rhythmic system of plants (and human beings).

Roots, which in this philosophical system come under the Sal principle, have a particularly robust structure, and therefore require great digestive energy. The specific construction of roots is, of course, responsible for their long life and ability to be stored. If we consider red or strongly-coloured roots, such as carrots, beetroot or swedes, they have collected a lot of light-energy. We are dealing with complex sugars, which include starch and inulin, and these, especially when cooked, are easily digested by humans.

Foods from the animal kingdom, then, are most easily broken down when they are exposed to heat and have undergone the least change, e.g. milk and honey. Quark is in a peculiar position, it is completely impartial. In meat, the etheric energies and structures of the vegetable food have undergone considerable changes in the animals' digestive tracts, and have been transformed into specific forms by the animals' metabolism, becoming part of their own bodies.

Eating meat makes us alert and lively, increasing our interest in the



world around us. When animal proteins are broken down, considerable quantities of acidic metabolic products are created, which have a tonic action on the sympathetic nervous system. Moreover, meat contains, among other things, a lot of Phosphorus, which is a stimulant.

However, these days meat consumption gives cause for concern, because people nowadays have strong links with the earth and with astrality, as it is. In children especially, consuming a large amount of meat results in rapid development with astralisation, which occurs too early for their age. Compared with domestic animals, the proportion of protein and minerals in breastmilk is extremely low; however, it rises as the infant's speed of development accelerates. By consuming animal proteins, the processes of growth are forced, to the detriment of the development of the etheric energies. Later, a high proportion of protein in the diet leads to sclerosis and, in chronic diseases, possibly to purulence or inflammations.

A high consumption of animal fats likewise causes sclerosis, from the Anthroposophical point of view, which however may be mitigated by vegetable fats. This means that the unsaturated fatty acids from the vegetable kingdom have a therapeutic action, whereas, on the contrary, saturated fatty acids may likewise lead to sclerosis. Fat deposits serve particularly as reserves, but could only be mobilised after some delay. This may be seen in physical activity. For a rapid supply of energy, first of all, the body's meagre reserves of glycogen are

pressed into service, and proteins (glyconeogenesis), and only later are the fats melted down. The hardest fats are found in the CNS, which is the source of the sclerosing, disintegrating impulses in the body. (Thinking is a seriously disintegrative process). The liver, as the site of the highest concentration of polyunsaturated fatty acids is therefore very intolerant of the arrival of any saturated (animal) fats. Admittedly, these saturated acids are very digestible, but later on are not converted into heat. On the one hand, this may be due to an overload or weakness of the pancreas or, on the other hand, it may result from too much insulin, which militates against lipolysis.

To sum up, then, we may say that fruits which are particularly ripe, or other parts of plants which have absorbed plenty of warmth, also foods of animal origin, processed as little as possible, which spoil easily, are the most digestible and can be utilised by the body straight away.

Carbohydrates

Particular mention should be made of carbohydrates. They are bodily and structural substances from plants. They include mono- and disaccharides, starches, hemicellulose and cellulose. Mono- and disaccharides occur only rarely in plants, the predominant portion is starch, which - as opposed to cellulose, lignines etc. - can be re-mobilised by the plant at any time.

The starch in every type of plant is constructed very individually, and this may be proved e.g. chemically and microscopically (rice, maize, wheat and potato starches).

Physiologically, the body breaks down carbohydrates in the intestine, but only as far as the above-mentioned di- and monosaccharides; further decomposition then occurs through microbial activity. In human intermediate metabolism, sugar is broken down into carbon dioxide and water. Mono- and disaccharides are the most active forms of carbohydrate, but they also have their particular properties. They can crystallize out, which makes them similar to salts. Thus, they straddle the boundary between living and dead material. From this point of view, the concept of sugar as „empty, dead calories“ is therefore very apt. For their metabolism, sugars require minerals and vitamins (especially those of the B-group), which accompany them within plants, and without which they cannot be utilized. Sugar is more than just carbohydrate, it is sweet, apart from a few exceptions, which are bitter. The taste sensation of sweetness, paired with fat, is the one that we retain longest into old age.

For intestinal health and human metabolism, both the amount and the kind of carbohydrates consumed are of great importance, and for this reason, the individual monosaccharides will be briefly characterised here:

Fructose is a particularly lively form of sugar, closest to the sulphuric principle of the plant. It is able to be converted to glycogen in the liver without the addition of insulin.

Glucose occupies a middle position between galactose and fructose, acting as blood-sugar. From the



Anthroposophical point of view, it is the carrier for the ego-organisation, it links the CNS and the metabolism; its organs are situated in the area of the rhythmic system (pancreas, liver). In contrast to the animals, glucose in humans and the anthropoid apes is found not only in the blood plasma but also in the erythrocytes.

Galactose (also known as mucous sugar) is metabolically quite inactive, although it is most easily absorbed in the gut. It bears little relation to the metabolism, which means that it is suited to functional testing of the liver. Other than in the milk of mammals, it only occurs as a building block in the cerebroside of the brain (Steiner called the brain „hardened milk-juice“).

All three monosaccharides bond with glucose to form disaccharides:

- Lactose (Glucose/Galactose)
- Maltose (Glucose/Glucose)
- Saccharose (Glucose/Fructose)

On Q. 2.: What upsets health within the gut?

Dysbioses

As well as nourishing food full of vital energy and appropriate for one's age, a healthy gut also needs a physiological flora, which guarantees the symbiosis between host and microbes. Disorders have far-reaching effects. An unsuitable diet in itself can result in food intolerances in the gut, allergic reactions and inflammations, or can interfere with the symbiotic flora. As well as this, the balance of the flora can also be seriously impaired by inhibitors. As a result of such intestinal upsets,

remote effects may be experienced all over the body.

One example of this is the multiple occurrence of middle-ear inflammations in children.

According to statistics published in the USA, children under the age of two are the most frequent visitors to a doctor for episodes of otitis, and it was shown that between 1975 and 1990 there was an increase of 224%. In the children of one sample, the statistics showed that 53% of children suffer from otitis at least once in their first year of life, and 61% were affected during their second year. Since in the USA 99% of otitis cases are treated with antibiotics, the direct and indirect treatment costs accruing from each illness, plus parents' time off work amounted to US\$ 406 (Shaw). This makes otitis media a very cost-intensive illness, especially if we take into account the illnesses that follow it (food intolerances, allergies, autism, ADHD, deep-rooted developmental disorders). Bacteriological investigations have revealed that, in all, 70-90% of all otitis cases could be attributed to *Streptococcus pneumoniae* (30-40%), *Haemophilus influenza* (21%) and *Moraxella catarrhalis* (12%), which were overall up to 96% resistant to Penicillin (e.g. Amoxicillin).

Causes of otitis

If mothers stop breastfeeding prematurely, or do not breastfeed at all, frequently otitis occurs as part of the adjustment. This organic manifestation frequently goes hand in hand with episodes of intestinal colic and diarrhoea. Increasingly, infants also manifest such symptoms, when the

mothers themselves suffer from an intolerance of animal milk products. Because they have leaky gut syndrome, fragments of the foreign protein pass through the intestinal wall and enter the infant's intestine via the milk.

Following vaccinations, diarrhoea and otitis are very frequently observed in infants, because a foreign protein has been introduced into a body, which has not as yet achieved immune competence.

As the tympanic cavity, just like the intestine, is derived from the entoderm, there is a link between intestinal disorders and diseases of the ear. If patients, who are reacting with otitis are treated with antibiotics, then the intestinal flora is also damaged, especially in view of the fact that anti-bacterial medicines are mostly administered orally. It has been demonstrated that a single dose of penicillin reduces the number of „good“ flora by a thousand-fold. Often, as a result of antibiotics, not only are the symbiotic bacteria inhibited, but also at the same time yeasts and fungi receive a boost to their growth. In some cases, these excrete very toxic metabolic products.

Dr. William Shaw (USA) has carried out intensive research into this problem in connection with autism. With the aid of gas chromatography and mass spectrometry in investigating urine samples, he was able to establish the presence of excretory changes, e.g. acids and toxic substances, which had been produced and released in the gut by bacteria, yeasts and fungi.



He also demonstrated links between yeast infestation with baker's yeast and an increase of Tartaric acid in the affected person's urine. As Tartaric acid is very toxic, considerable attention should be paid to this finding. 12g of Tartaric acid taken by an adult can result in death 12 hours - 9 days after its consumption. The poisoning symptoms are violent vomiting, diarrhoea, abdominal pain and thirst, followed by cardiovascular collapse and/or acute kidney failure. The first organs to suffer damage are the muscles and the kidneys, and this was evident particularly in autistic subjects.

Elevated Tartaric acid levels were likewise found in the urine of fibromyalgia patients who were also suffering from depression, woolly thinking and chronic tiredness.

In children, intestinal yeasts can produce up to 4.5g of Tartaric acid per day, which is excreted in the urine.

Shaw attaches particular significance to those toxins, known collectively as gliotoxins, which are formed primarily by yeasts and fungi.

Individually, these are:

- Dihydroxyphenylpropionic acid - similar substances as from clostridiums,
- Arabinose from arabitol,
- Furans from varieties of Aspergillus, yeasts and fungi.

It had likewise proved possible to demonstrate the presence of gliotoxins from yeasts and fungi in the intestines of pigs and cattle that had

been given antibiotics with their fodder. After the prescribed withdrawal period and culling, no more antibiotics could be found, however, the gliotoxins were still present in the tissues. Similar storage of toxins was established in chickens and pigs that had been fed on mouldy cotton-seed cake.

For human beings, the toxic effects from consuming such meat are more violent than if they were to eat plants contaminated with Aspergillus.

The toxic action of gliotoxins consists in the fact that they fragment the D.N.A. of the white corpuscles which inactivate the sulphhydryl groups of proteins, and that they also create free radicals and a particularly large amount of acetaldehyde. The latter, among other things, bonds with many amino-acids, instead of Vitamin B6, so that no corresponding enzymes can be created and Vitamin B6 is excreted. With neurotransmitters such as serotonin and dopamine, acetaldehyde can form bonds similar to opium, which act on the brain.

Candida albicans

In very young mice, a yeast infestation such as *Candida albicans* can result in a persistent candidiasis. When antibiotics were given at an early stage, the candida infestation increased by about 130 times!

Candida albicans builds nests in the affected intestine, anchors itself in the intestinal wall and destroys it with enzymes. These enzymes are not only able to partially digest the intestinal wall, but they also dissolve the antibodies of groups IgA and

IgM, which have been formed to combat them.

Clostridia

In the course of his investigations, Dr. Shaw also established that, following doses of antibiotics, not only did fungal and yeast infestations increase, but also that increased amounts of toxins were excreted in the urine, indicating a serious degree of *Clostridium* infestation. *Clostridia* are anaerobic, include many pathogenic micro-organisms and act via their toxins. They include the microbe responsible for tetanus. Following an anti-fungal treatment with e.g. Nystatin, the signs of *Clostridia* multiplying even increased. A further vitiating factor is that most *Clostridia* are already resistant to antibiotics. As well as this, they exchange gene material amongst each other and probably with other bacteria as well.

Treatment

If we take this research into account, we cannot avoid keeping to an anti-fungal diet and undergoing an appropriate course of isopathic treatment according to the following plan.

What we need to do is to de-acidify and detoxify the body, because the growth of yeast is frequently favoured by heavy metals and other toxins. Even if antibiotics are not taken, the normal flora and intestinal mucosa can be damaged, e.g. in mammals by consuming foreign proteins from eggs and pork. Therefore, these animal products should be avoided.

FORTAKEHL supports a healthy flora, and PEFRAKEHL and ALBICANSAN limit the growth of



yeasts and fungi. Following these, the metabolic regulators MUCOKEHL and NIGERSAN are required, along with the immune modulators and the haptenes, to build up and strengthen the body's powers of resistance.

The prescription for an adult, following Dr. Werthmann's Four-Stage Plan, might look like this:

1. Diet excluding products from cow's milk, hen's eggs, pig-meat, white flour and sugar, no uncooked fruit and vegetables! Possibly nothing baked with yeast. Right from the start, in the mornings and evenings on an empty stomach, $\frac{1}{2}$ a measuring-spoonful of ALKALAN powder dissolved in very warm water, to be sipped; likewise to be taken in warm water, in the mornings, 1-2 tsp. SANUVIS drops, and 10 drops CITROKEHL in the evenings.
2. Starting at the same time, FORTAKEHL 5X drops in the mornings, starting with 2 drops massaged in around the navel, increasing daily up to 8 drops, massaged in or orally; in the middle of the day ALBICAN-SAN 5X drops, and in the evenings PEFRAKEHL 5X drops, application and dosage as with FORTAKEHL. (As an alternative to the three preparations mentioned, in the evenings one suppository of EX-MYKEHL 3X may be used, however, good elimination must be ensured!) These remedies should be taken for at least a fortnight, then:

3. in the mornings, MUCOKEHL 5X drops and, in the evenings, NIGERSAN 5X drops; again, begin with 4 drops to be massaged in, and increase the dose to 10 drops. Alternatively, SANKOMBI 5X drops, 4-10 drops twice a day, can be given. These preparations are used for 5 days, then we change back to the preparations for Stage 2 for 2 days, and then we revert to SANKOMBI or MUCOKEHL and NIGERSAN for another 5 days, and so on.
4. From the second week of treatment, additionally, SANUKEHL Cand 6X drops and SANUKEHL Myc 6X drops, alternating daily, initially 2 drops, then later up to 8 drops, massaged into the hollow of the elbow; after a fortnight replace both these with SANUKEHL Pseu 6X drops and SANUKEHL Staph 6X drops, same dosage and method of application, for a further fortnight. For immune modulation, UTILIN 6X, RECARCIN 6X and LATENSIN 6X, in weekly alternation.

On account of enzymes being inhibited, it is very important to give doses of B-Vitamins (e.g. VITAMIN B COMPLEX SANUM N, an injection once or twice weekly, or Vitamin B6, c.2mg a day), Biotin (50-200 μ g a day), Vitamin C (Acerola cherry) and Zinc (ZINKOKEHL 3X drops, 10 drops twice a day). Unsaturated fatty acids have an important part to play and should be given as LIPISCOR caps. 3 twice a day, and BIOFRID PLUS caps. 2 twice a day.

The patients' livers should be supported with SILVAYSAN caps., 1 twice a day.

If the immune system is very weak, it is advisable to give a daily dose of 1 capsule of REBAS 6X over a 4-week period.

To deprive the clostridia of their basis of existence, it is very important for these patients to consume food containing chlorophyll (i.e. green), although this must first be steamed. Also recommended are plants containing mustard oil glycosides. As seasoning, Marjoram should be used frequently, because it has a selective antiseptic action in the gut. It is also sensible to take *Lactobacillus acidophilus*.

In view of the powerful toxic action of dysbiotic microbes, this treatment, including the diet, must be adhered to for at least six weeks. In individual cases, a longer period may be required. The treatment being gentle and natural, no hypersensitivity reaction is to be expected, especially, if the dosage is increased very cautiously.

Depending on the degree to which the patient is affected, a heavy metal elimination can precede or be inserted, using USNEABASAN, OKOUBASAN and LUFFASAN, at the same time giving ZINKOKEHL 3X, SELENOKEHL 4X and MAPURIT (i.e. the SANUM Elimination treatment).

Bibliography

Mielke. „Droge Wohlstandskost“ [= Affluent diet as a drug], Mielke Verlag, Hanover



Lutz. „Leben ohne Brot“ [= Living without bread], 15th edn. ISBN 3-88760-100-9

Waerland. „Der Schlüssel zur Gesundheit liegt im Darm“ [= The key to health lies in the gut], 12th edn., Humata Verlag Harold S. Blume

Leuschner. „Autoimmunkrankheiten der Leber und Overlapsyndrome“ [= Auto-immune diseases of the liver and

Overlap syndrome] ISBN 3-89599-883-4

Husemann/Wolff. „Das Bild des Menschen als Grundlage der Heilkunst“. Vol.I & II [= The picture of the human being as the basis for the healing arts], Verlag Freies Geistesleben.

Shaw. „Biologische Behandlungen bei Autismus und PDD“ [= Biological treatments for autism and PDD], ISBN 0-9661238-3-2

First published in the German language in the SANUM-Post magazine (80/2007)

© Copyright 2007 by Semmelweis-Institut GmbH, 27318 Hoya (Weser), Germany

All Rights Reserved