

LEAKY GUT & IMMUNE SYSTEM MADE EASY

A talk given by Tessa Jupp RN in June 2003 has led to a new addition to our book range - \$5. Here is a summary of the book.

The information for this topic came mainly from a very interesting document by Willis S Langford entitled "Autism - a comprehensive guide" which is available on the internet. Although this article is aimed at treating autistic children, a lot of this information gleaned from world-wide research, is as valuable to the "normal" population as well.

There is an integral link between the functioning of the gut and the immune system and what affects one has a bearing on the other. In order to fix something, we need to understand how it works properly in the first place. **The overheads from the talk which explain all this in simple language, have been put together into booklet form and are available at \$5 each.**

The important message is that there are 2 types of Helper T-cells in the immune system called Th1 and Th2. The Th1 cells deal with acute infection - like colds and flu's, infected cuts etc. The Th2 cells are responsible for antibody production so that the body can overcome a repeat infection much faster. In simple terms - Th1 are the soldiers fighting in hand to hand combat and the Th2 cells are those on guard duty to sound the alarm and repel invaders.

Problems occur when the Th2 cells become dominant unbalancing the Th1 cells. When this occurs we tend to develop chronic allergies, depressive psychological disturbances, auto-immune diseases, leaky gut and constant infections that are difficult to resolve.

The pattern can be set in childhood as vaccination stimulates Th2 production (can be further stimulated by fluvac etc) and lowers Th1 cells. So a pattern is set up with frequent colds, flu's and ear infections etc that are hard to throw off. We may then end up on antibiotics which kill off the good gut flora, leading to overgrowth of candida and causing damage to the gut lining. This results in decreased nutrient absorption, indigestion, gut ulceration, leaky gut, food intolerances allergic reactions, chronic illness like asthma etc, build-up of toxic metals, chronic ill health and auto immune disease such as Chronic Fatigue, diabetes, Lupus, rheumatoid arthritis, cancer and autism in susceptible individuals as the Th2 climbs higher. So at any point in our lives we can be thrown into this vicious cycle of ill-health that is self perpetuating.

T Helper 2 Cells are raised by infection, vaccines, stress, faulty digestion, leaky gut, candida, eating processed sugars & flours, trans-fats like margarine, omega 6 fatty acids like canola oil - all of which can lead to adrenal exhaustion, a further complication.



SIGNS Th2 IMMUNE SYSTEM is HIGH

allergies
muscle aches/headaches
poor sleep/anxiety/tantrums
leaky gut
candida
grain &/or dairy intolerances
stressed, depressed, withdrawn

CAUSES of LEAKY GUT

stress & lifestyle factors - *immune dysfunction*
poor diet - *high in refined foods - low in fruit & veg*
nutritional deficiencies - *poor digestion & absorption*
intestinal invaders - *candida, heliobacter, parasites*
environmental toxins - *chemicals & heavy metals*
medicinal drug overuse - *antibiotics, NSAIDs, antacids*

SIGNS of LEAKY GUT

- * abdominal discomfort
- * bloating, distension
- * reflux, indigestion
- * burping, flatulence, gaseousness
- * diarrhoea &/or constipation
- * problems sleeping
- * irritability or weird behaviour
- * allergy prone eg hayfever, sinus
- * skin eruptions - rashes, acne, boils, eczema

SIGNS of LOW STOMACH ACID

- ♦ stomach uncomfortable after a meal
- ♦ burping, flatulence
- ♦ bloating, distension
- ♦ reflux, indigestion
- ♦ diarrhoea &/or constipation
- ♦ undigested food in faeces
- ♦ coated tongue
- ♦ fatigue

CAUSES of LOW STOMACH ACID

- antacids - *acid production shuts down for 9 days*
- stress - *physical & emotional*
- bacterial overgrowth - *candida, heliobacter*
- grain or dairy intolerances
- inflamed irritated gut
- low zinc, magnesium, Vits B1, B3, B6
- chronic pain or illness
- surgery or trauma
- depression
- chemotherapy
- blood type A - *has lower levels of stomach acid*

DO YOU SEE SIMILARITIES OCCURRING HERE?

The same things keep coming up as happening with leaky gut and low stomach acid. And there is an inter-relationship between the effect the immune system and digestive system have on each other.

There isn't room in this short article to go into the normal workings of either the immune system or the digestive system (see the booklet for this) but it is important for all parts and systems of the body to get the appropriate nutrients - vitamins, minerals, amino acids as well as the carbohydrates, proteins and fats that are needed for normal body metabolism.

Otherwise they cannot function as they are designed to and we recognise this as disease rather than as nutritional dysfunction and therefore correctable.

Many so called "diseases" could be addressed in this fashion. Stomach acid is necessary to break down the foods we eat, particularly proteins before they pass through to the next part of the gut to an alkaline environment and where the doorways to absorption from the gut are like border guards where you have to have the right passport to enter or need a sponsor to accompany your admission.

Just as stomach acid is dependant on the necessary nutrients esp zinc, B1, B6 so digestive enzymes, bile and insulin rely on the message for release sent by stomach acidity and need certain nutrients also for production. Each system is reliant on another working well too. For Bile to emulsify dietary fat we need cholesterol, taurine, Vit C, manganese and sulphur to make the bile.

SIGNS of LOW BILE PRODUCTION

dietary fats are not being digested well if

- ♦ faeces float in toilet
- ♦ faeces colour is light tan or grey
- ♦ faeces are bulky and shiny
- ♦ bowel action is foul smelling

If you have problems with fatty liver or gallstones, taking taurine, carnitine, Vit E and lemon juice can alleviate. Causes include high copper levels, excessive sugar or fats in the diet, obesity, low stomach acid, low intake of Vit C & E, taurine, manganese, constipation and lack of exercise.

HEALING LEAKY GUT

So to fix leaky gut we need to address a lot of the causes. We need to -

- 1 **Increase stomach acid** by taking lemon juice, apple cider vinegar or hydrochloric acid tablets immediately before a meal.
- 2 **Avoid processed foods** esp grains & sugars (includes flours, breads, pasta cereals, rice)
- 3 **Take glutamine** and Vit A to help repair the damaged villi (gut mucosa absorption sites) and reduce gut hyper-permeability (inappropriate absorption)
- 4 **Increase bile and pancreatic enzymes production** - take taurine, Vit E & C, B3, chromium, zinc, manganese
- 5 **Restore Gut Flora** with acidophilus, biodynamic yoghurt, or probiotics on an empty stomach
- 6 **Eat organic fruit and veg**
- 7 **Use blood group diet**

8 **Drink more water** - spring or filtered

9 **Avoid constipation** - take magnesium and Vit C to bowel tolerance (twice a day on empty stomach)

10 **Boost the immune system** - get more sleep, gentle exercise, laughter & fun

To BOOST Th1 CELLS (and balance Th2)

- * **take glutamine**, Vit A, C, E, zinc, B Vitamins, essential fatty acids - according to blood group
- * **boost friendly gut flora**
- * **improve digestion** - stomach acid, digestive enzymes, bile, insulin
- * **detox** any heavy metals eg copper, mercury, lead
- * **reduce stress** - relax, sleep, massage, meditation, gentle exercise, laugh, have fun

So we keep coming up with the same things still.

How about CONSTIPATION?

CAUSES of CONSTIPATION

- ♦ dehydration - need 8-10 glasses of water per day
- ♦ low digestive enzymes
- ♦ low nutrient levels esp Vit C & magnesium
- ♦ low protein and fibre intake
- ♦ parasites incl candida, intestinal worms
- ♦ excessive dairy intake
- ♦ low thyroid
- ♦ lack of exercise

OVERCOMING CONSTIPATION

- ♥ Drink more water
- ♥ take magnesium and Vit C to bowel tolerance
- ♥ increase stomach acid & digestive enzymes
- ♥ take supplements - essential fatty acids, zinc, chromium, B1, B6 etc
- ♥ eat according to blood group
- ♥ eliminate problem grains & dairy
- ♥ eat balanced diet - meat, veg, fruit
- ♥ exercise - walk, swim, bounce, yoga



and - **SIGNS OF COLON DYSFUNCTION**

- ♠ lower back pain (*also neck & shoulder pain*)
- ♠ pain in lower stomach - *particularly left side*
- ♠ bloating, flatulence, gas
- ♠ fullness under diaphragm - *can cause*
- ♠ *shortness of breath & discomfit*
- ♠ fatigue, sluggishness, brain fog
- ♠ constipation or diarrhoea
- ♠ digestive problems
- ♠ leaky gut
- ♠ Irritable Bowel Syndrome, colitis
- ♠ Diverticulitis, Ulcerative Colitis, Crohn's

And the same answers apply again.