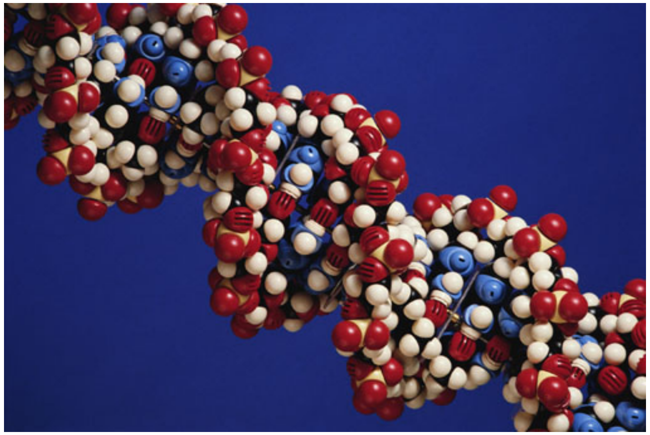
GAP Syndrome

Gut And Psychology / Gut And Physiology Syndrome

Dr Natasha Campbell-McBride MD



Growing epidemics: MENTAL PROBLEMS

- 1 child in 10 has learning difficulties
- Around 3 children in every classroom has ADHD/ADD
- Around 1 in 150 children have autism – 40 fold increase in the last two decades
- 10% are dyslexic
- 10% are dyspraxic
- 1 child in every classroom has depression
- Around 7% diagnosed with bipolar disorder
- 1 in 100 diagnosed with OCD

Growing epidemics: ALLERGIES

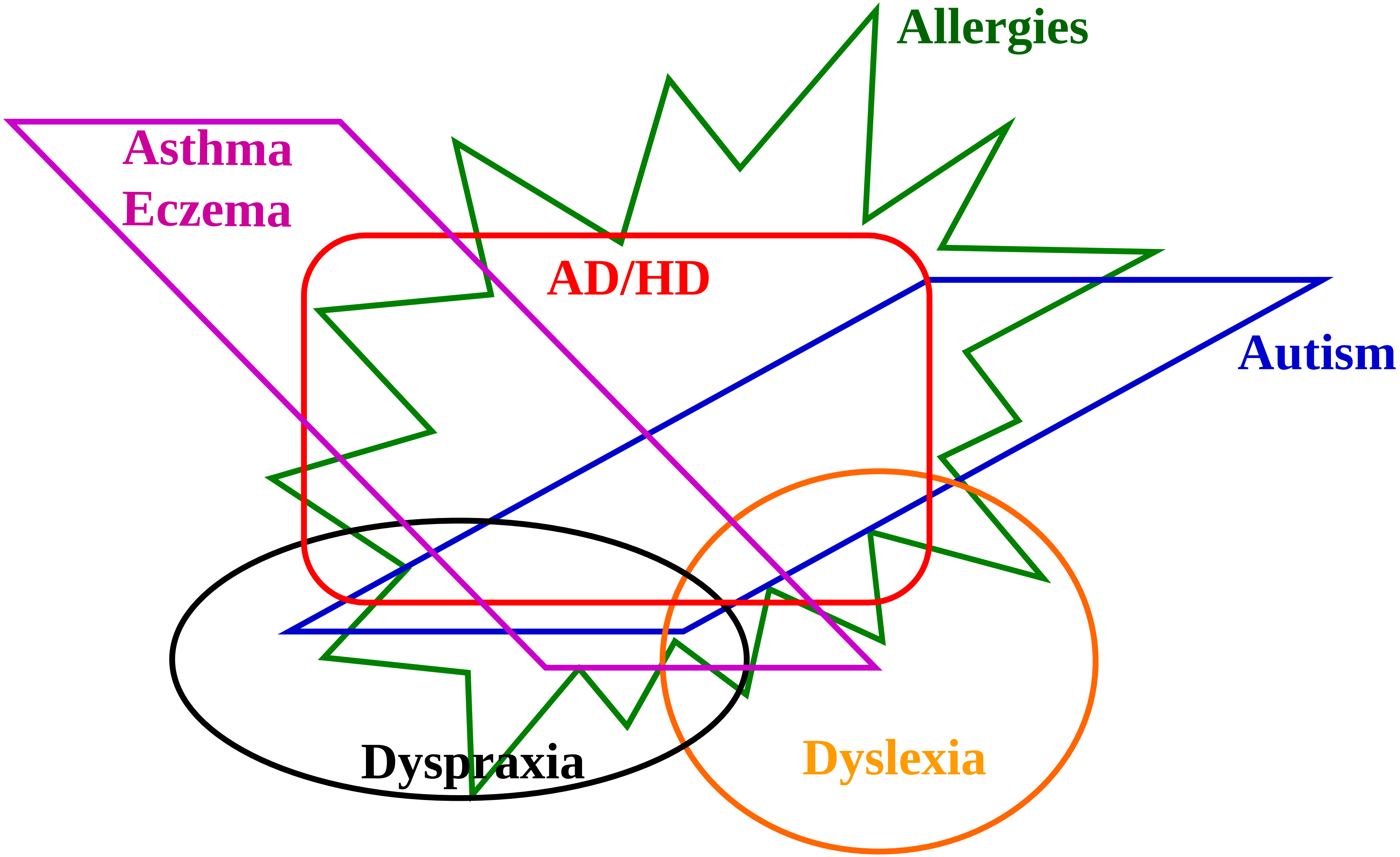
- About 1 in 3 people suffer from allergies (UK, USA, Australia)
- Almost half of all school children
- Around 1 in 8 children have asthma
- Asthma incidence is growing – six fold increase in the last 25 years
- 25% of teenagers suffer from hay fever
- 10-20% of children suffer from eczema, incidence is increasing
- About 8% of children have anaphylactic type food allergies

Growing epidemics: TYPE ONE DIABETES

- 1 in 400 – 600 children in US & UK
- Incidence is increasing: in under fives incidence doubled in the last 5 years
- Every day 5 more children are diagnosed, 2000 new cases each year in the UK
- Severe health complications & disability
- Shorter life span – the death rate is 4-5 times greater than in general population
- Linked to celiac disease

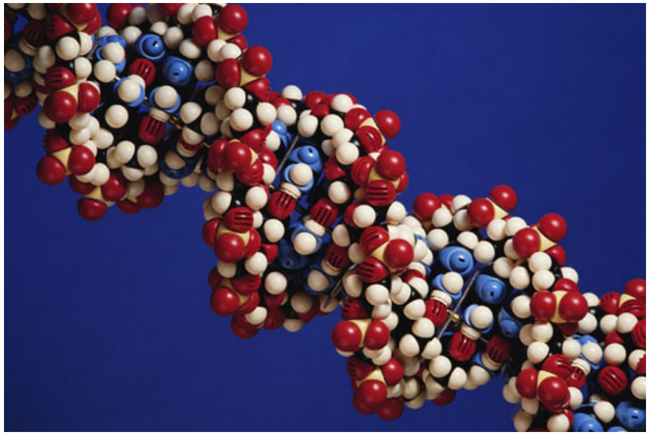
Growing epidemics: CELIAC DISEASE

- Around 1 in 130 in general population
- In a family with CD 1 in 22
- 66% of children with CD are asymptomatic
- Children with type 1 diabetes are 20 times more likely to have celiac disease
- Only 35% of them have CD symptoms
- Around 60% of children with CD have learning problems / disability
- Up to 27% of children with CD will develop another autoimmune disorder


Allergies
Asthma
Eczema
AD/HD
Autism
Dyspraxia
Dyslexia

GUT AND PSYCHOLOGY SYNDROME

Dr. Natasha Campbell-McBride M.D.



GAP Syndrome

Child

- AUTISM
- ADHD/ADD
- DYSLEXIA
- DYSPRAXIA
- LEARNING, BEHAVIOURAL, SOCIAL PROBLEMS

Adult

- SUBSTANCE ABUSE
- DEPRESSION
- OBSESSIVE-COMPULSIVE
- MANIC-DEPRESSIVE
- SCHIZOPHRENIA

GAP Syndrome

digestive problems

allergies

asthma, eczema

malnutrition

bed wetting

thrush

chronic cystitis

GAP Syndrome

- Colic
- Bloating/ Flatulence
- Diarrhoea
- Constipation
- Feeding Difficulties
- Malabsorption
- Faecal Compaction on X-rays
- Over-Spill Syndrome

Autistic Enterocolitis

Research by Andrew Wakefield *et al.*

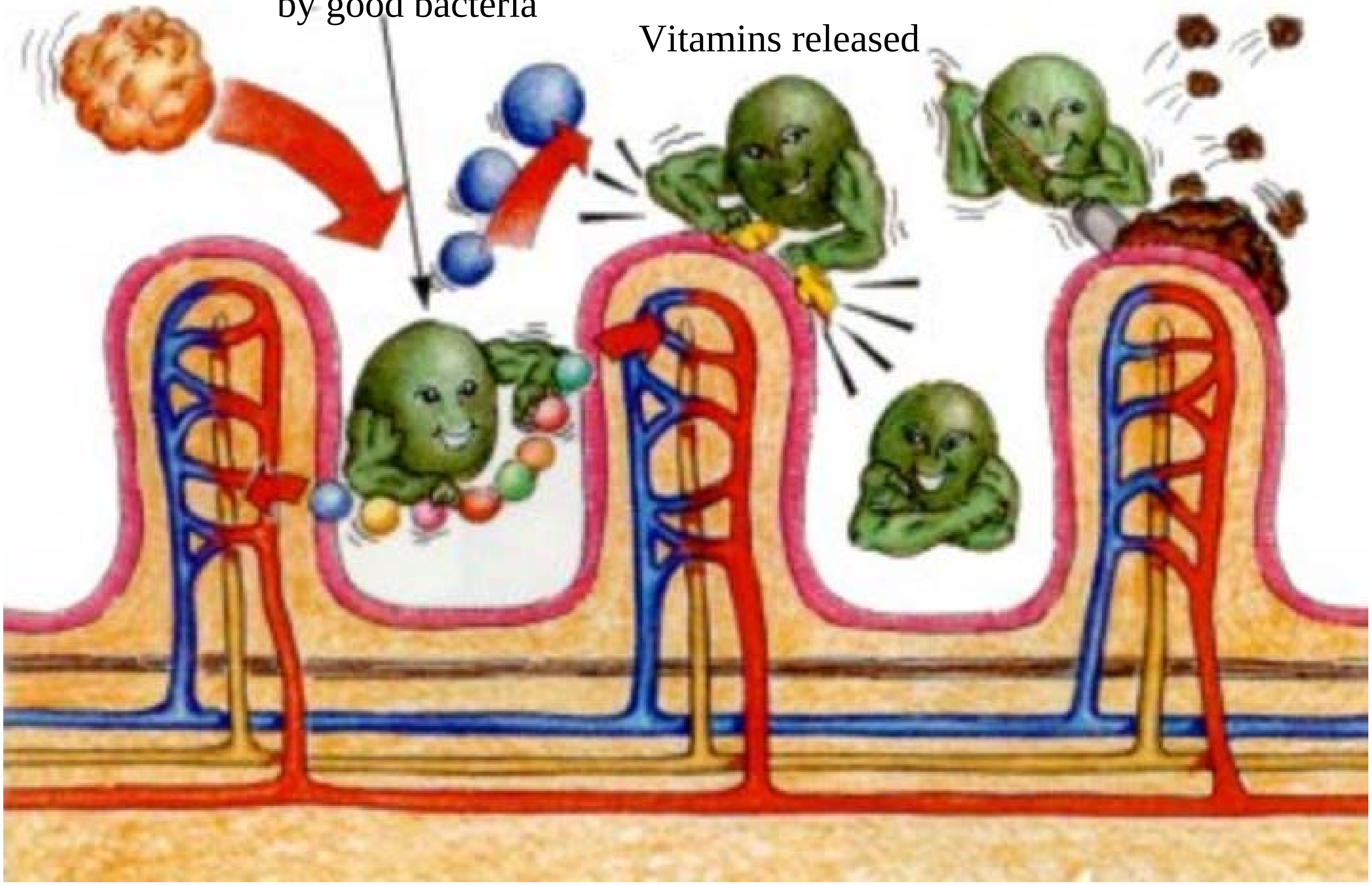
Ileal – Lymphoid – Nodular Hyperplasia & Non–Specific Colitis

- Chronic Inflammation
- Erosions
- Abscesses with Pus
- Faecal Compaction
- Enlarged Lymph Nodes

Roles of Gut Flora

- Protection from Invaders
- Health and Integrity of the Gut
- Appropriate Digestion and Absorption
- Vitamin Production
- Detoxification
- Immune System Modulation

Roles of Gut Flora



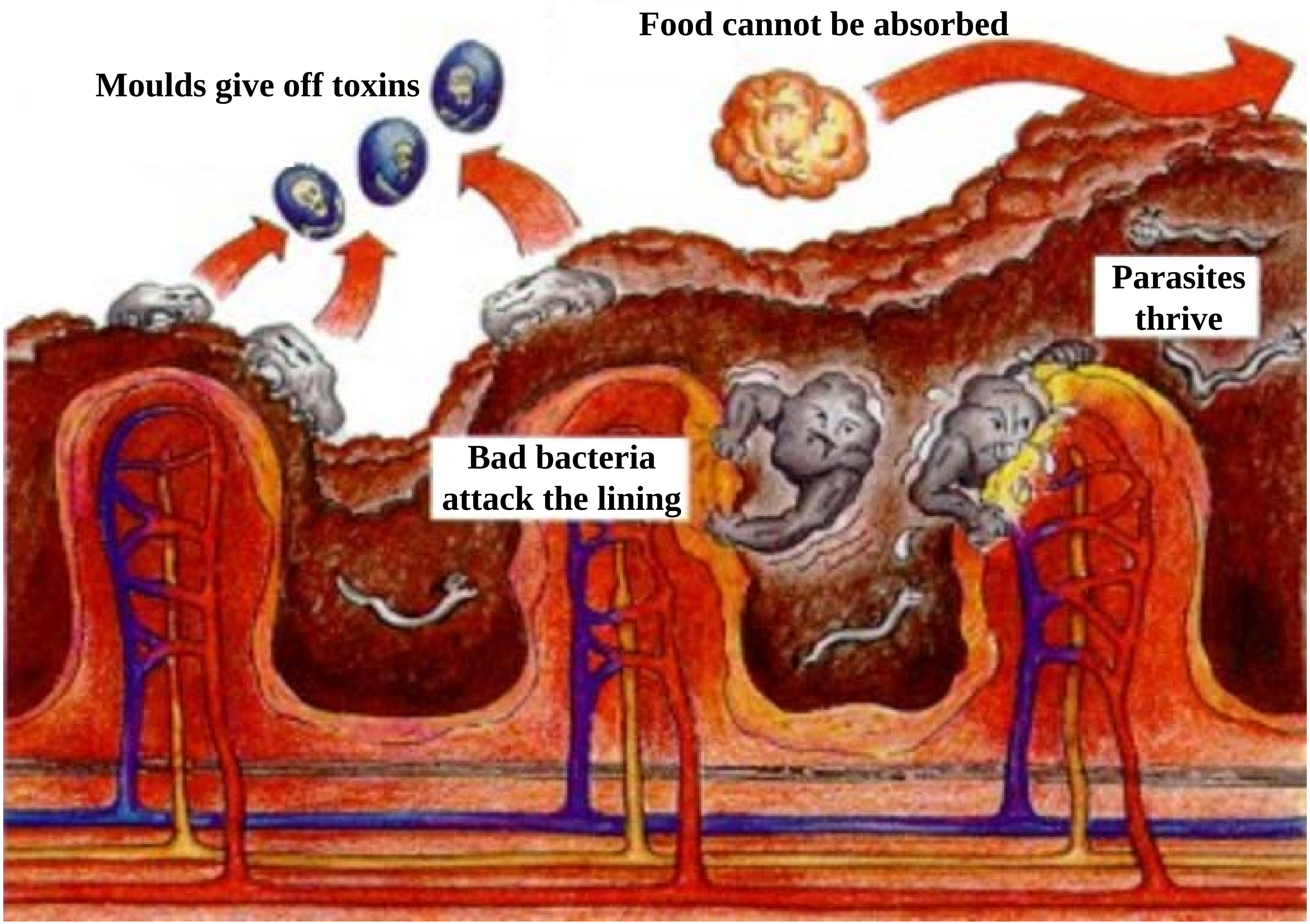
What can damage Gut Flora

- Antibiotics
- Steroids, The Pill
- Other Drugs
- Stress
- Poor Diet
- Infections
- Disease
- Bottle Feeding
- Old Age
- Pollution
- Radiation
- Alcohol
- Toxic Chemicals
- Dental Work

GAPS Patients & Gut Dysbiosis

- Reduced/Absent Populations of Normal Flora
- Candida Species Overgrowth
- Clostridia Species
- Sulphate Reducing Bacteria
- Viruses: Measles, Herpes, CMV, etc

Gut Dysbiosis - The Unhealthy Gut



The Gut – Brain Connection

- Acetaldehyde & Alcohol
- Dermorphin & Deltorphin
- Gluteomorphins & Casomorphins
- Low Serum Sulphate
- Clostridia Neurotoxins
- Organic Acid Testing

A Typical Scenario

- Mother With Gut Dysbiosis
- The Baby does not Develop Normal Gut Flora
- Immune System Compromised
- Ear Infections, Antibiotics
- Chest Infections, Antibiotics
- Further Damage to Gut Flora & Immune System
- Vaccinations
- Usual Weaning Diet
- Gut Dysbiosis
- Toxicity
- Brain Dysfunction

BLOOD - BRAIN BARRIER

- Very selective in letting things through
- Tight junctions & zonulin
- Microbial toxins and autoimmune attack
- Damaged blood – brain barrier
- Toxins, microbes & antibodies get through
- Impaired brain function leads to impaired learning, behaviour, social skills & perception
- Epileptic seizures

Epilepsy in children

- 1% of population under the age of 20
- 50% of children with mental problems
- 70% - no cause is apparent

In vast majority of cases childhood epilepsy is due to toxicity coming from the gut

The treatment needs to concentrate on the gut health

GAPS and Immune Deficiency

- Lack of Normal Regulation by Gut Flora
- Lack of Nourishment for the Immune System
- Imunotoxins Produced by Abnormal Gut Flora

  (Gliotoxins, Acetaldehyde, etc)
- Auto-antibodies

  (Basic Myelin Protein, Acetaldehyde Modified Proteins, Gamma-globulin Therapy etc)
- Antibiotics
- Vaccinations

DAMAGED GUT WALL

- Lack of protection by beneficial gut flora
- Attack by pathogenic microbes & toxins
- Enterocytes degenerate
- Zot and zonulin (A. Fasano)
- Damaged gut wall allows proteins, toxins & microbes through
- Immune system develops antibodies
- Autoimmune attack on the body

AUTOIMMUNITY

- Caused by absorption of intact proteins and peptides through damaged gut wall
- Immune system produces antibodies, which then attack its own tissues
- In type 1 diabetes pancreatic cells are attacked
- In celiac disease small intestine is attacked
- In autism & other learning problems nervous system is attacked
- Always more than one tissue is attacked

DAMAGED GUT WALL

- Partially digested foods are absorbed
- Immune system reacts to them
- Food intolerances / food allergies
- Testing is useless
- Treatment should concentrate on healing and sealing the gut lining
- As the gut heals the food allergies disappear

Gut And Physiology Syndrome

- Autoimmunity: *multiple sclerosis*, *rheumatoid arthritis*, *diabetes type one*, *celiac disease*, *osteoarthritis*, *lupus*, *etc*
- Arthritis of any kind
- ME, fybromialgia, chronic fatigue
- Allergies
- Migraines & other headaches
- Chronic cystitis
- Skin problems: psoriasis, eczema, etc

GAPS Nutritional Protocol

- GAPS Diet (based on the SCD)
- An Effective Probiotic
- Address Nutritional Deficiencies
- Detoxification

SUPPLEMENTATION

- **AN EFFECTIVE PROBIOTIC**
- **VITAMIN A & D - COD LIVER OIL**
- **ESSENTIAL FATTY ACIDS (OMEGA-3, OMEGA-6, OMEGA-9)**
- **MULTI-VITAMIN, MINERAL AMINO-ACID SUPPLEMENTATION**
- **DIGESTIVE ENZYMES: HCl & PEPSIN, PANCREATIC ENZYMES**

DETOXIFICATION

- JUICING
- BATHS WITH EPSOM SALT, SEA SALT, CIDER VINEGAR
- AVOIDING TOXIN EXPOSURE

Walker B. 9 years old
Type 1 Diabetes, Celiac disease & Autism

- Type 1 diabetes from the age of 15 months, daily insulin injections.
- Autistic development from 18 months, non-verbal, dyspraxia, diarrhoea with undigested food, used to be severely constipated, bloating, reflux, finicky eater, malnourished, pale, eczema, allergies, poor sleep, not potty trained. Diagnosed as celiac.
- Started GAPs programme in May 02, at the age of 3,5.
- In 6 months normal stool, eczema has cleared, much better feeding habits, put weight on, not pale anymore, better sleep.
- In 1 year great improvements in language development and social skills, potty trained.
- In 1,5 years at mainstream school and has many friends, autism and dyspraxia are almost undetectable. The daily dose of insulin is halved.
- Now - no traces of autism or dyspraxia, school champion in karate, insulin injections occasionally at a low dose.

Leandro D. 9 years old

Idiopathic generalised epilepsy, Asperger's syndrome

- Normal development till age 2, very bright. Colic, prone to constipation, lots of colds.
- Around 2 became fussy with food, hyperactive, limited his diet, abnormal stools, malnourished.
- At 3,5 after fever got absences, by 4 - grand mal epileptic seizures & absences 10 – 15 a day. Regressed in language and learning ability, obsessions, self-stimulation, hyperactive.
- Medication for epilepsy (Sodium Valproate) – poor control of seizures, became aggressive & unable to learn, personality changed.
- At 7 started GAPS nutritional protocol.

Leandro D. 9 years old

Idiopathic generalised epilepsy, Asperger's syndrome

- In 3 months better physically but the parents felt that medication (Sodium Valproate 800mg a day) was causing the seizures and interfering with the learning ability. Started reducing the dose.
- In 9 months reduced the dose of Sodium Valproate to 250mg. No grand mal, 1-4 mild absences a day. Thriving at mainstream school, greatly improved language and learning, better social skills, has friends, normal stools, good eating habits.
- In 20 months off all medication. Occasional very mild absences, physically healthy, not hyperactive anymore, normal behaviour & social skills. Academically 2 years behind.

Gut and Psychology Syndrome

Natural treatment for

Dr. Natasha Campbell-McBride MD, MMedSci(neurology), MMedSci(nutrition)

APPROPRIATE DIET FOR

GUT AND PSYCHLOGY SYNDROME

OR

GAPS DIET

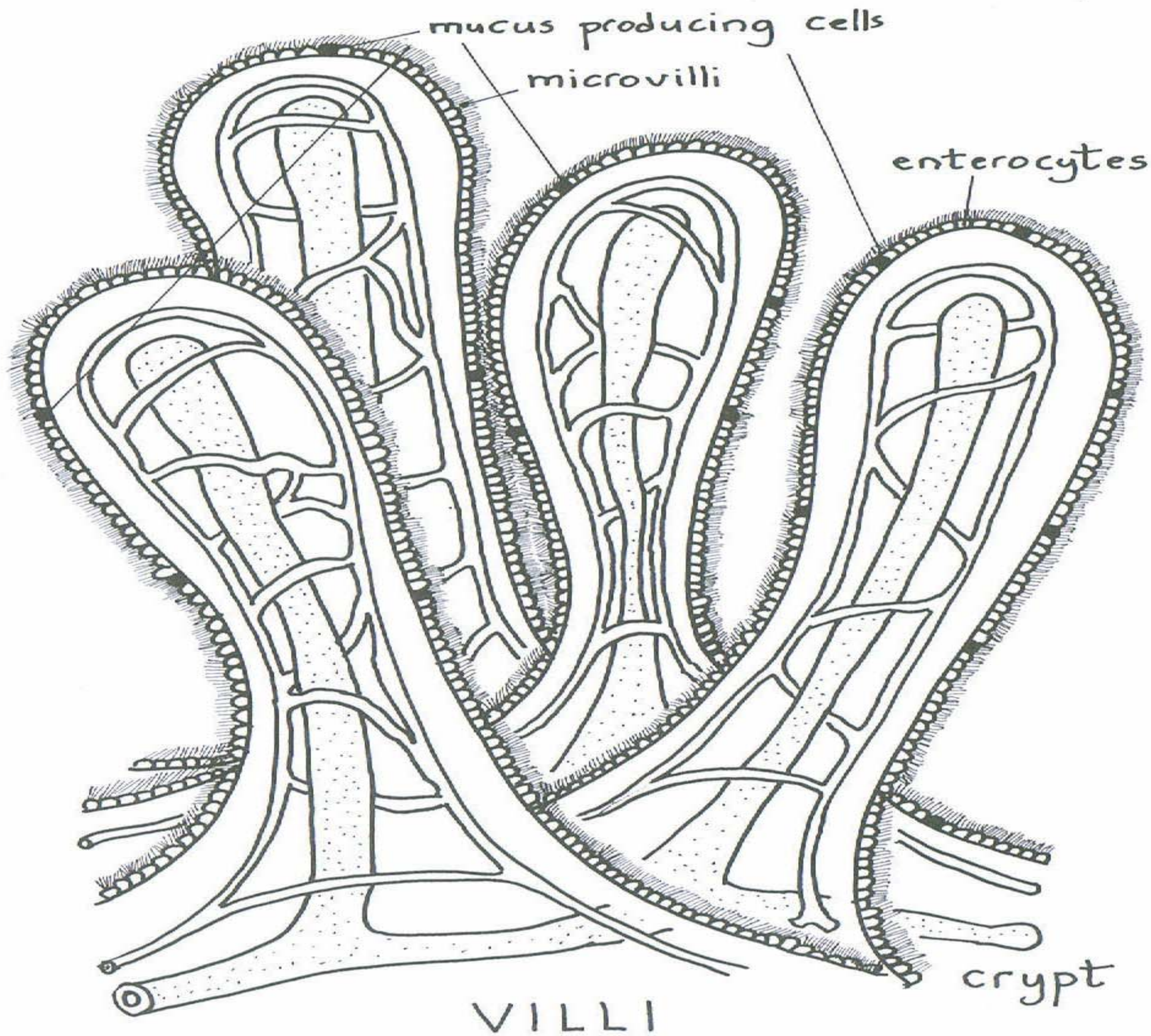


FIG. 3 The absorptive surface of intestines.

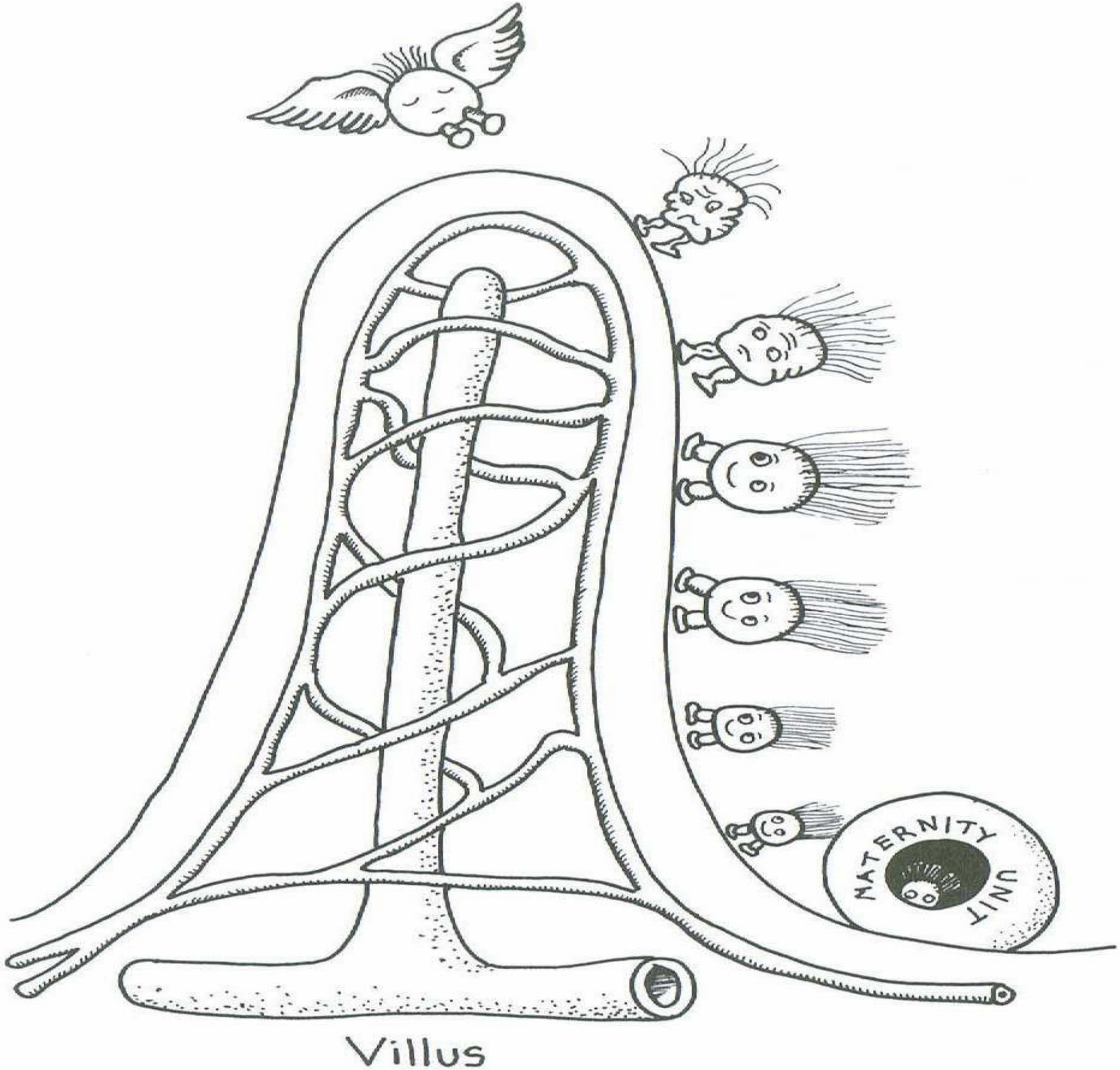


FIG. 1 The life-cycle of an enterocyte.

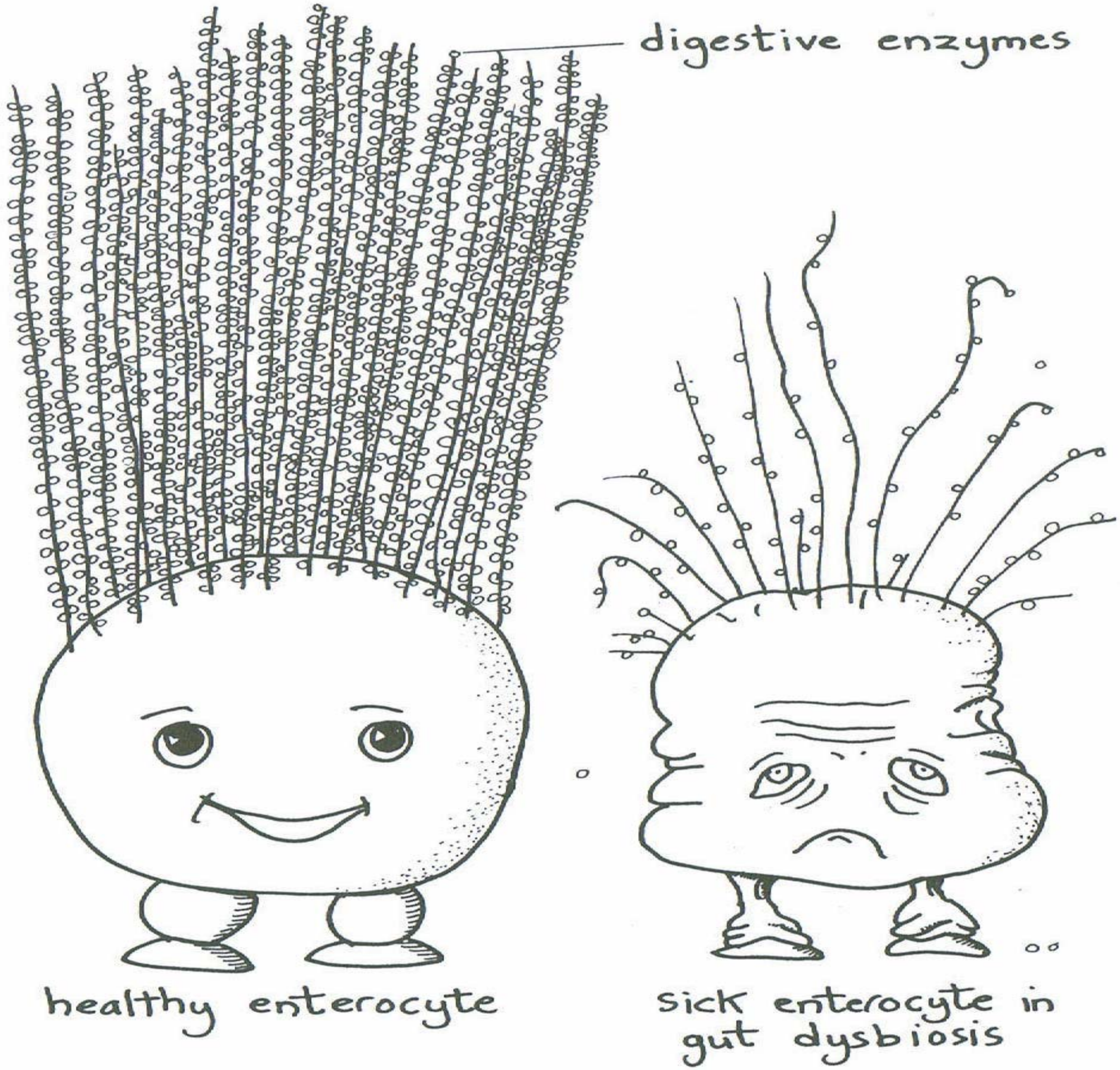


FIG. 2 The hair on the enterocytes represent microvilli. As the enterocytes cover the surface of the villi their hair (microvilli) make a so-called brush-border, where the last steps in digestion of food happen.

Fussy eating habits

- Often a first sign of GAPS
- More than 90% of children with learning disabilities
- Limit their diet to sweet & starchy foods
- Have solid physiological reasons
- Chapter “It’s feeding time. Oh, no!”
- Using behaviour modification technique you can get 100% success

Foods to avoid

- All grains
- Starchy vegetables
- Sugar, other commercial sweeteners
- Milk sugar Lactose
- Starchy beans including soy
- All processed foods
- All food additives

Recommended foods

- All meats cooked from fresh or frozen
- All fish cooked from fresh or frozen
- Organ meats
- Good quality eggs
- Non-starch vegetables
- All ripe fruit including dried fruit
- Nuts and seeds
- Fermented dairy
- Cold extracted honey

Natural fats

- All animal fats
- Butter and ghee
- Coconut oil and palm oil
- Cold pressed virgin olive oil

Avoid all margarines, butter replacements, vegetable oils and cooking oils

Breads, pies, cakes, muffins, pancakes, waffles etc.

- Nuts or seeds ground into flour
- Eggs
- Butter, ghee, coconut oil, goose fat, duck fat
- Carrot, winter squash, marrow, courgette
- Dried fruit: dates, figs, apricots, raisins
- Ripe banana
- Salt, sun dried tomato, tomato pure, spices
- Cheese and fermented cream

Dairy – only organic!

Avoid for 4 weeks or longer

Step 1: Introduce unsalted ghee

Step 2: Introduce unsalted butter

Step 3: Introduce homemade yoghurt, fermented cream & kefir

Step 4: Introduce homemade cheese

Step 5: Introduce mature traditional cheese

Step 6: Introduce raw double cream & clotted cream, introduce raw milk

Avoid all pasteurised milk and milk substitutes

Meat & fish stock

- Homemade meat & fish stock
- Soups and stews made with stock
- Meat jelly made at home
- Bone marrow
- Joints and cartilage
- Natural gelatine

Avoid commercial stock cubes or granules!

Fermented foods

- Sauerkraut
- Fermented vegetables with yoghurt/kefir starter
- Fermented fish
- Fermented dairy
- homemade vinegar

Recommended reading: ***Nourishing Traditions*** by S. Fallon and M.G. Enig

Low fibre diet for diarrhoea

- No raw foods, no fruit, no nuts or seeds
- Homemade meat stock
- Meat and fish well cooked in water
- Soups and stews with vegetables & meats
- Well cooked vegetables
- Eggs
- Homemade kefir, yoghurt and cheese
- Fermented vegetables

GAPS Introduction Diet

- Low fibre - gentle and healing
- Foods introduced gradually
- Structured in stages
- Provides building blocks for the enterocytes
- Provides beneficial microbes
- Removes food intolerances quicker
- Requires patience and perseverance

www.gaps.me

Natural chelation

- Freshly pressed vegetable & fruit juices
- Probiotics
- Fermented foods
- Sea greens
- Humic acids: fulvic acid, Humet, etc.
- Spirulina & algae
- NDF (Nano-colloidal Detox Factor)

Gut and Psychology Syndrome

Natural treatment for

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