

## **PREFACE**

A sa naturopathic doctor, I find that I regularly have to convince people that I am engaging in scientific medicine, and not hocus pocus. It seems that our contemporary paradigm is at a strange crossroads in this way. We are no longer satisfied with the commonly short sighted and robotic treatment of the mainstream medical field – but we have also become so cynical and dependent that we have a hard time trusting those outside of the mainstream. I am speaking generally, of course, but it's a conflict I see time and time again. So I do a lot of writing in an effort to defend and explain alternative and complementary medicines, as well as naturopathy generally.

Some of the following points come from my natural <u>cancer</u> <u>protocols preview</u>. They fit here as well because both cancer patients and patients with depression have a few things in common. Everyone is trying to sell a "miracle cure" for these illnesses, because those who struggle through cancer or depression are desperate for relief and hope. Many of these "miracles" are scams – the most terrible kind of hoax, taking advantage of people who don't have the time or energy to be fooled around with. So it's no wonder that many have a hard time trusting practitioners who lean away from the mainstream.

While many people tend to think of naturopathy and alternative medicine as entirely separate from the clinical and scientific research of the conventional medical field, this couldn't be further form the truth. In fact, naturopathy uses the exact same pool of research that conventional medicine bases its practices





on – reading the same peer reviewed medical journals and going to the same conferences. The difference lies in how we look it. You see, the research itself doesn't provide us with answers – it simply provides doctors with data that they can make inferences upon and develop treatment programs accordingly. But how you apply the vast amount of research to your practice depends upon your own expertise, beliefs, and style of treatment. Two doctors can read the same research studies, but each may utilize the information very differently.

My point here is that with a naturopath like me, you are treated using the same scientific method practiced by conventional medicine today – and the same one that has been utilized for centuries. It's based on scientific research, clinical experience, and medical expertise. I don't read tea leaves or ashes, and you'll find no snake oil in my medicine chest. I want all of my clients to understand this. This world is filled with many charlatans who preach of miracle cures for this and that, especially over the Internet. But I am as far from that as you can imagine. In fact, I work to expose such practices. They are unethical, irresponsible, dangerous, and a disgrace to the entire medical field. You don't have the time to be led by the blind. You deserve nothing less than the best professional care out there.

The following writing demonstrates the serious technical detail that I go into in formulating prescriptions and evaluating patients' needs. It is meant to serve you as an introductory guide into the world of naturopathic mood disorder support. However, it is not meant to be used to self-prescribe. It is absolutely worth-



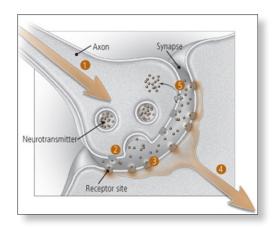
while to understand the mechanics explained in this excerpt, but this is only the tip of a vast iceberg. The rest of that iceberg is contained in my years of study and experience – which is something that can't be so easily condensed and simplified. Creating your own prescriptions from this guide will be, at best, inefficient. At worst, it could be dangerous. So please, contact me for a consultation. Our initial discussion is free of charge and comes with no obligation. You have nothing to lose.

Thanks for reading.

~ George Parker, N.D.

## MOOD DISORDER SUPPORT PROTOCOL PREVIEW

#### **NEUROTRANSMITTER IMBALANCE**



Neurotransmitters are naturally occurring chemicals that relay messages between nerve cells throughout the body. This process, which affects everything from muscle contraction and blood flow to mental acuity, is dependent upon an ad-

equate supply of neurotransmitters, their precursors and cofactors in order to function properly. Neurotransmitter can have an excitatory, inhibitory or modulating effects on mood and behaviour. Glutamate and Aspartate are the primary excitatory neurotransmitters whereas GABA is the primary inhibitory neu-



rotransmitter. The remaining neurotransmitters are modulating, meaning they can have an excitatory or inhibitory effect depending on where they are located in the brain. The primary neurotransmitters involved in stress, anxiety, depression and aggression include:

- Stress dopamine, noradrenaline, serotonin, acetylcholine
- Anxiety serotonin, GABA, opioids, histamine, glutamate and aspartate
- Depression serotonin, opioids, dopamine
- Aggression serotonin, GABA

Assessment tools: Neurotransmitter Amino Acid Profile – Urine

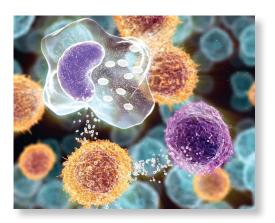
## **Nutritional considerations:**

- Serotonin: Tryptophan, Vitamins C, B1, B2, B3, B6, Zinc, Magnesium, Folate, Calcium.
- Dopamine: Tyrosine; Magnesium; Vitamin B6
- Acetylcholine: Choline; Vitamins B1 and B5, Magnesium; Acetyl-L-Carnitine.
- GABA: Glutamine; Taurine; Vitamin B6; Zinc
- Opioids: Phenylalanine; Tryptophan; Vitamins B1 and B6; Zinc.
- Norepinephrine: Tyrosine; NAD; Vitamin B6; Vitamin C



All neurotransmitters require cofactors for essential functioning, including: Vitamin B6, Vitamin B5, Vitamin C, Magnesium, Zinc, Copper.

### **DOWN REGULATE INFLAMMATORY MEDIATORS**



Inflammatory mediators, such as cytokines, influence neuro-immune-endocrine cellular signalling and thus have a significant negative effect on psychological functioning. Cytokines can affect the production of neurotransmitters

in the brain, contribute to neuronal injury, degrade the bloodbrain-barrier and induce oxidative damage.

## **Symptomology**

Altered sleep responses, Confusion, Apathy, Chronic inflammation, Anxiety, Depression.

#### **Assessment Tools:**

- Blood test: CRP
- Interleukin Profile
- EFA levels Plasma or Erythrocyte
- Patient History: Chronic inflammatory conditions



## **Nutritional considerations:**

- Quercetin; Bromelain; Vitamins A, C and E, Selenium; Zinc
- Essential Fatty Acids

#### IDENTIFY AND SUPPORT GENETIC SUSCEPTIBILITIES

Our genetic make up and hence individual biochemistry



plays a major role in determining the factors that will affect each of us and how these impact on our mental health. Certain people may have a predisposition to deficiencies in certain nutrients and hormones which can lead to an imbalance in neurotransmitters and the development of

mood/mental disorders. Neurotransmitters imbalances can be genetic in nature and involve abnormal absorption, metabolism and/or storage of key nutrients. Our individual biochemistry can help to determine which nutrients are individually required to balance health and prevent disorders. Some examples include....

## **PYROLURIA**

This genetic condition, referred to as the "mauve factor", is related to an error in pyrole chemistry. These people have kryptopyrroles in their urine, which bind with vitamin B6 and Zinc, depleting the bodies supply of these nutrients.



## Symptomology of Pyroluria:

Explosive temper, Mood swings, Poor short term memory, Frequent infections, Fearfulness, Continuous stress and anxiety.

## **Assessment Tool for Pyroluria:**

- Kryptopyrrole urine test
- Zinc status via taste response

Nutritional considerations for Pyroluria: Vitamin B6, Zinc; Magnesium; Manganese.

## HYPOMAGNESAEMIA (Low magnesium levels)

## Symptomology of hypomagnesaemia:

Startled response, Anxiety, Palpitations, Cramping, Irregular heart beat, Premenstrual symptoms

#### Assessment tools:

- Serum, red blood and urinary magnesium levels
- Major Histocompatability Complex (HLA and H-2)

#### **Nutritional considerations:**

Magnesium

HYPERCORTISOLISM (eg: Maternal Stress and Amygdala development)

## Symptomology of Hypercortisolism:



Inability to cope with Stress, Fatigue, Depression, Impaired immunity.

#### **Assessment Tools:**

- Serum / Salivary Cortisol
- Patient history

#### **Nutritional considerations:**

 Vitamin B5; Vitamin C; Magnesium; Tyrosine; Tryptophan; Acetyl-L-Carnitine; Phosphatidylserine.

For further information on genetics, see my ebook, "The Genetics of Stress and Depression".

#### **FOOD SENSITIVITIES**



It stands to reason that any digestive disorder will affect the absorption of nutrients. Abnormally low or high hydrochloric acid, pancreatic enzyme insufficiency, leaky gut

and inflammatory bowel disease can contribute to deficiencies in certain nutrients and promote food sensitivities. Amino acid/protein deficiency and immune dysfunction can result from this, and directly affect the production of neurotransmitters. If the integrity of the gut lining is compromised toxic substances may also be passed through to the bloodstream affecting our mental health.



Undigested peptides in protein rich foods are common culprits:

Cow's milk	Soy	Corn	Beef
Peanuts	Fish	Wheat (gluten)	Shellfish.

## Other culprits include:

Oranges	Yeasts	Caffeine	Chocolate
MSG	Artificial colors/	Sugar	Nitrates
Nightshade vegetables	Aspartame/ aspartic acid		

## Common additives include:

C	F., 4b,: /107\	Monosodium
Caramels (150)	Erythrosine (127)	glutamate (621)
A (O.5.1)	T	Sulphur dioxide
Aspartame (951)	Tartrazine (102)	(220)

## Indications of possible food sensitivities:

Digestive impairment and Leaky gut syndromes, Immune irregularities, Poor detoxifications pathways and Mood disorders.

## **Assessment Tools:**

• IgG Food allergy panel



- Intestinal Permeability
- Functional Liver detoxification profile

## Nutritional Considerations (multifaceted approach):

- Remove / Eliminate culprits
- Improve gut mucosa: Glutamine; Glucosamine; Mucopolysaccharides.
- Digestive support: Pancreatic enzymes; Pepsin
- Improve gastric acidity: Betaine Hydrochloride; Histamine; Glutamic acid; Zinc; Vitamin B3; Acetylcholine precursors, 5HTP.
- Reduce inflammatory mediators: Quercetin; Bromelain;
  Vitamins A, C and E, Selenium; Zinc; Essential Fatty Acids
- **Support liver detoxification**: Methionine; Glutathione; Choline; Taurine; B-vitamins

## Nutrients to detoxify specific additives / foods:

- Tartrazine: Molybdenum; Vitamin B12; Vitamin C and Zinc
- Salicylates: Taurine and Glycine
- Colourings: Cysteine; Taurine; Methionine; Vitamin B5 and Vitamin B6
- Pesticides: Cysteine; Taurine; Methionine; Vitamin B5
- Chlorine: Cysteine; Taurine; Methionine; Vitamin B6



- Metabisulfite: Molybdenum; Vitamin B12; Vitamin C
- Formaldehydes: Taurine
- Chemical sensitivity: Zinc; Magnesium; Chromium; Vitamin B1, Vitamin B5

#### **UNDER-METHYLATION**

Methylation reactions occur throughout the body and are necessary for the production of certain neurotransmitters. Undermethylation predisposes to low levels of serotonin, dopamine and noradrenalin. Nutrients such as Vitamin B6, Vitamin B12, Folic acid and Betaine are essential for healthy methylation.

#### Assessment Tools:

- Plasma homocysteine levels
- Methylation panel (B6; B12; Folate; Homocysteine)

#### **Nutritional Considerations:**

 Methionine; Folic acid; Vitamin B12; Pyridoxal-5-phosphate; Magnesium; Calcium

### HEAVY METAL TOXICITY

Heavy metal toxicity is known to be a causative, or contributing factor to mood and central nervous system disorders. Certain people may be more susceptible to accumulation of toxic substances in their bodies than others, depending on environmental or occupational exposure.



Symptomology of Heavy metal exposure: Aggression, Irritability, Depression, Memory loss, Learning deficits, Headaches.

## **Assessement Tools:**

- Hair analysis
- Urine challenge test
- Red Cell (erythrocyte) levels
- Patient history

#### **Nutritional Considerations:**

- Phase 11 Liver detox + Heavy metal conjugation: Cysteine; Choline; Methionine; Taurine; plus B vitamins including B12, B6, Folic acid and Inositol.
- Antioxidants: Quercetin; Ascorbic acid; Alpha Lipoic Acid; Glutathione

For information about the detoxification process, visit Balan-Soul's Clinical Detoxification web page.

#### **OXIDATIVE STRESS**

The brain is particularly vulnerable to oxidative damage. Oxidative stress may contribute to feelings of stress, anxiety and aggression by its effects on inflammatory mediators, neurotransmitter receptors and secondary messenger systems. Free radical production also damages DNA, proteins and lipids and influences nerve cell death.



Symptomology of oxidative stress: Signs of advanced ageing, Chronic fatigue, Inflammatory conditions (eg: arthritis), Senility, Immune dysfunction, Cardiovascular disease and other chronic degenerative conditions.

#### **Assessment Tools:**

- CoQ10; Vitamin E, Vitamin A; Beta-Carotene
- Lipid peroxides
- 8OH-2-Deoxyguanosine
- FRAS3
- Total Antioxidant Status

#### **Nutritional Considerations:**

- Free radical scavengers/antioxidants Bioflavonoids including Quercetin, Ascorbic acid, Tocotrienols
- Support enzyme systems: Glutathione; Selenium; Zinc.

## HYPOGLYCAEMIA AND INSULIN RESISTANCE

Fluctuating blood sugar levels can impact mood and behaviour generally. Genetics play a role here, but coupled with an unbalanced diet the risk is increased for the development of glucose metabolism problems in many people. Insulin Resistance is commonly associated with altered blood sugar metabolism, elevated glycosylated haemoglobin and oxidative damage.

Symptomology of Hypoglycaemia: Mood swings, Erratic behaviour before or after eating, Tiredness/low energy, Poor concentration, Headaches, Trembling.



### **Assessment Tools:**

- 2 hour Glucose Tolerance Testing with fasting insulin
- Haemoglobin AIC
- 10-12 hour fasting blood glucose and insulin

## **Nutritional Considerations:**

- Chromium; B vitamins; Magnesium; Complex carbohydrates and Protein rich foods
- Eat small meals frequently

#### HORMONAL IMBALANCE

**Hormones involved**: Thyroxine; Triiodothyronine; Cortisol; DHEA; Oestrogens; Progesterone; Testosterone.

Research has led to the discovery that anxiety disorders are associated with abnormal levels of certain hormones. People with anxiety tend to have higher than usual levels of corticotropic releasing factor (CRF), which switches on the stress response by initiating cortisol production. Other endocrine glands are also stimulated resulting in the dominance of certain hormones and inducing deficiencies in others. Low thyroid hormones are associated with depression and anxiety. An imbalance in the oestrogen to progesterone ratio can contribute to decreased blood sugar control, impaired immunity, migraines, mood swings, depression and violent outbursts. Low testosterone is associated with lack of interest and passive behaviour whereas elevated levels are associated with aggression.



## **Assessment Tools:**

- Comprehensive hormonal panel: (E1, E2, E3); Progesterone; Testosterone and Melatonin.
- Adrenal function test: Cortisol; DHEA's
- Thyroid panel: T3; T4; TSH and rT3

#### **Nutritional Considerations:**

- Thyroid support: Tyrosine; Selenium; Iodine
- Cortisol excess: Magnesium; Vitamin B5; Vitamin C; Phosphatidylserine
- Sex hormones: Zinc; Calcium; Magnesium; B vitamins; Liver nutrients for detoxification

#### **NUTRIENT DEFICIENCIES**

Individuals suffering from mood disorders may be deficient in particular nutrients and must be supported with appropriate nutritional supplementation.

## **Assessement Tools:**

- Amino Acid Profile
- Essential Fatty Acids
- Vitamins
- Total Antioxidant status



## Nutrients or particular importance:

- Low levels of the following nutrients are associated with mood disorders: Vitamin B12; Vitamin B6 and Folate
- Cofactors: B complex vitamins; Magnesium; Zinc; Iron;
  Copper; Vitamin C; Calcium, etc
- Support cell membranes: Omega 3 fatty acids (DHA).
- **Precursor amino acids**: Tyrosine; Phenylalanine; Tryptophan; Histamine; Glutamine, etc.

[...]

If this sounds like something you'd like to learn more about, please <u>contact me</u> for a consultation, or just for a quick chat for more information. I will personally provide you with a unique treatment program tailored to your specific situation and needs.

You may also like to check out some of BalanSoul's mental health related articles and e-books:

- The Meaning of Depression
- <u>Defeating the Depression that Eludes Conventional</u>
  Medicine
- More Than Just a 'Gut' Feeling
- The Genetics of Stress and Depression
- Important Facts about Stress
- 30 Ways to Reduce Stress



## **About George Parker**



George Parker, owner of website, BalanSoul and Mindivine, is a qualified practicing naturopath dedicated to helping people find wellness the world over. He offers worldwide distance treatments and consultations, as well as in person sessions in Victoria, Australia. Parker specialises in

the treatment of stress, depression and cardiovascular disease, assisting weight management, and complementary cancer treatment support. He also practices general naturopathy and preventative medicine. No matter how big or small your health concerns are, George Parker is ready to help you on your journey to wellness of body, mind, and spirit.

# For more information, visit <u>BalanSoul</u> or send an email to: george@balansoul.com.au

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