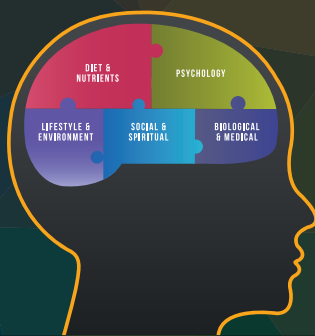


# Personalised Integrative Therapy



**For Depression & Anxiety**

**Participant Workbook**



# Personalised Integrative Therapy

For Depression & Anxiety

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## Participant Workbook

Adrian Lopresti, PhD






# Personalised Integrative Therapy

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## Acknowledgements

There are many terrific therapies available that can help people improve their mental health and overall quality of life. Personalised Integrative (PI) Therapy is a collation of techniques and ideas developed from these therapies and therefore would not have been possible without the efforts of dedicated researchers and clinicians in the field. The work of these individuals is acknowledged.

It is hoped that many people will benefit from the strategies covered in PI Therapy, and this would not have been possible without the experience I have gained from working with the many wonderful clients I have had the pleasure of meeting. It is from their own struggles, strength, and wisdom that I have been able to develop the foundations of PI Therapy.

I would also like to acknowledge and thank my wife and children who have patiently watched me spend hundreds of hours in front of the computer developing this program over the years. Their support is greatly appreciated. Also, to my friend and colleague, Stephen Smith, who has supported my efforts during this process and helped with the editing of this workbook, I would like to say thank you.

It is hoped that with the knowledge and skills you gain from PI Therapy it leads not only to an improved mental health, but a life full of meaning and purpose.

*“An intelligent heart acquires knowledge, and the ear of the wise seeks knowledge”*  
Proverbs 18:15

*“Great things are done by a series of small things brought together”*  
Vincent Van Gogh

**Dr Adrian Lopresti**



# TABLE OF CONTENTS

<b>SESSION 1</b>	<b>5</b>
Principles of Personalised Integrative (PI) Therapy	6
How PI Therapy Differs from Standard Treatments	6
About Online/ Group PI Therapy	7
Physiological Disturbances in Mental Health	8
How To Normalise Physiological Disturbances	12
Diet and Nutrition	12
Evidence-Based, Mood-Lifting Supplements	20
Goal Setting	23
This Week's Goals	24
<b>SESSION 2</b>	<b>27</b>
Review of Previous Week's Progress	28
Optimise Sleep	28
Get Active	31
Optimise Exposure to Sunlight and Nature	37
Increase Pleasurable, Engaging, and Soothing Activities	38
Minimise Technology and Social Media Use	40
This Week's Goals and Activities	41
<b>SESSION 3</b>	<b>45</b>
Review of Week's Progress	46
Reduce Life Stresses	46
Increase Positive Social Connections	48
Optimise Your Gut Health	51
Psychological Strategies I	55
This Week's Goals and Activities	58
<b>SESSION 4</b>	<b>65</b>
Review of Week's Progress	66
Psychological Strategies II	66
Minimise or Avoid Alcohol, Nicotine & Other Drugs	72
Minimise Exposure to Environmental Toxins	74
Medications & Mental Health	77
The Importance of Doctor-Patient Relationships	79
This Week's Goals and Activities	81
<b>SESSION 5</b>	<b>85</b>
Review of Week's Progress	86
Psychological Strategies III	86
Live a Valued and Meaningful Life	90
Manage Medical Conditions	92
This Week's Goals and Activities	98
<b>SESSION 6</b>	<b>105</b>
Review of Week's Progress	106
Where to From Here?	108
Preventing a Relapse	112
Final Comments	113

# SESSION 1

## Session 1 Outline

- Principles of Personalised Integrative (PI) therapy
- How PI therapy differs from standard treatments
- Physiological disturbances associated with depression and anxiety
- Diet and nutrition
- Evidenced-based mood-lifting supplements
- Goal setting

# Principles of Personalised Integrative (PI) Therapy

PI Therapy is a treatment for depression and anxiety that adopts an integrative or 'holistic' approach to mental health care. As outlined below, it is based on several guiding principles.

## Changes are 'personalised'

In PI Therapy the targeted areas of change, and the intensity of changes, are unique to each person. They are influenced by the areas in most need of change, the skills required to change, a person's motivation to change, barriers to change, and an individual's previous experience at change.

## Stepped-care approach

In PI Therapy the intensity of interventions may increase over time. If sufficient mental health improvement is not obtained after foundational changes, more intensive interventions are introduced. For example, dietary changes, exercise, and psychological interventions will become more comprehensive over time if adequate mood improvements do not occur. If, at the end of this program, full symptom resolution does not occur, recommendations for further individualised assessment and treatment will also be covered.

## Multi-targeted approach

Rather than targeting just one area (e.g., medication or psychological skills), PI Therapy aims to improve mental health by promoting changes in several different areas. It is believed that multiple, small changes in different areas are more effective, and often easier to achieve, than a dramatic change in a single area.

## Treat causes not symptoms

Diagnostic labels such as major depressive disorder, panic disorder, and post-traumatic stress disorder are not so important in PI Therapy. The key is to identify an individual's unique causes of mental health problems. Having a diagnosis does not tell us anything about the unique factors that might be affecting someone's mood. Rather, efforts should focus on identifying and treating causes.

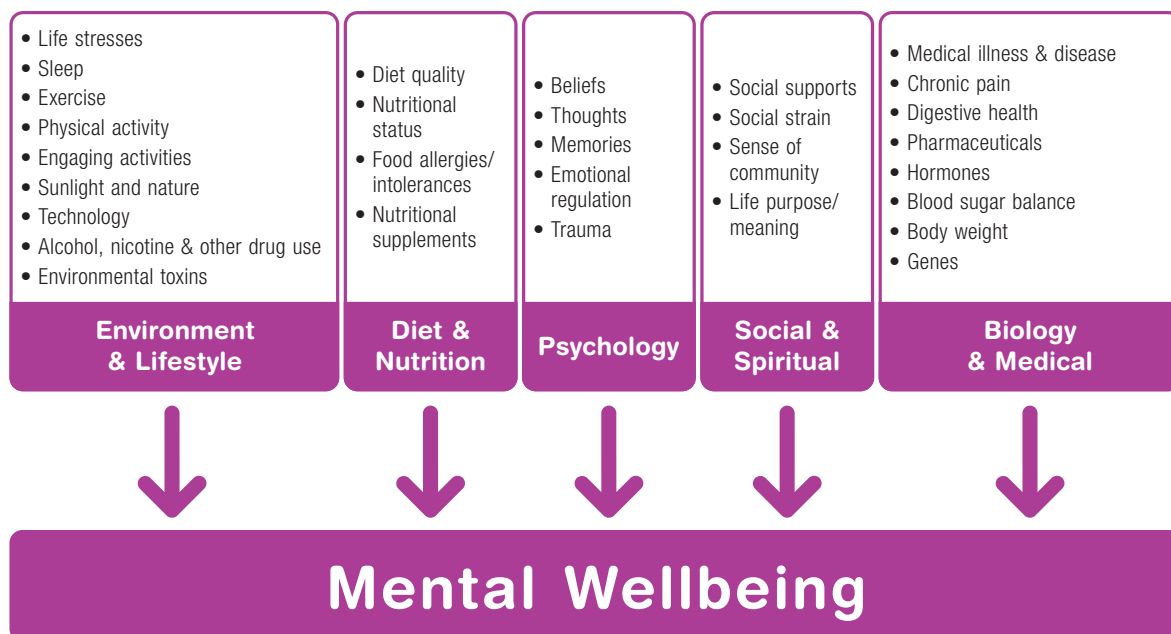
## How PI Therapy Differs from Standard Treatments

Psychological Therapy and pharmacological medications are the most popular treatments for mental health disorders. These interventions have strong scientific support in reducing the suffering associated with many mental health disorders. Popular psychological therapies include Cognitive-Behaviour Therapy (CBT), Acceptance and Commitment Therapy (ACT), Interpersonal Therapy (IPT), Schema-Focused Therapy, Mindfulness therapies, relaxation therapies, and psychodynamic therapy. The aim of most of these treatments is to modify unhelpful thoughts, beliefs, memories, and emotional coping strategies that can affect mood. Pharmacological medications are also commonly used to treat mental health disorders. These medications include antidepressants such as selective serotonin reuptake inhibitors (SSRIs) and mood stabilisers. While we are still not totally certain how these medications work, it is most commonly believed that these medications modify specific neurotransmitters (brain chemicals) and hormones that can affect mood.

PI Therapy can include both psychological and pharmacological interventions as part of the treatment. However, PI Therapy strives to improve mental health by supporting changes in several areas. As shown in figure 1.1, PI Therapy promotes changes in psychological skills, diet, nutritional status, lifestyle, environment, social connections, spiritual health, and biological/ medical status. Although psychological and pharmaceutical interventions are helpful for many people, they are far from perfect. In fact, they are



equivalent in their efficacy and only 30 percent of adults will experience substantial benefit. Another 30 percent report moderate benefit, and the remaining 40 percent experience no benefit at all<sup>1</sup>. PI Therapy aims to increase treatment success by utilising a multi-targeted approach.



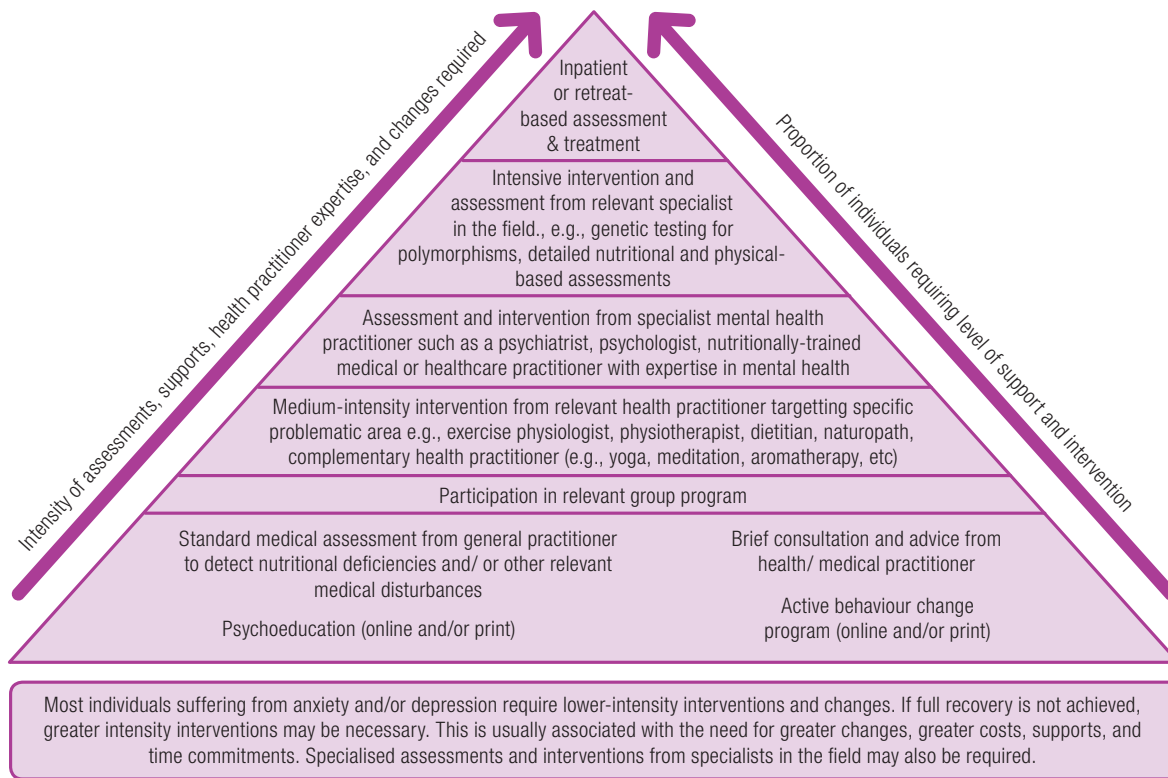
**Figure 1.1.** Integrative Approach to Mental Wellbeing

## About Online/ Group PI Therapy

Group or online PI Therapy consists of 6, weekly, 60 to 90-minute sessions. Specific topics are covered every session where you will be encouraged to review your current habits and, if appropriate, develop goals for change. It is acknowledged that some areas may be more problematic for you than others, however, setting even small goals for change in an area can have positive effects on your mood over time. During each session, you will complete questionnaires or rating scales, and then be asked to set potential goals for change. The final goals you set for the week will be determined at the end the session, although you will develop several ‘draft’ goals that you can work toward in future sessions, or later during your journey to recovery.

PI Therapy is a very active treatment. This means that you won’t simply be provided with information on mental health and potential treatment options. This is a common problem with many self-help books and programs on the market. There are many good ideas and information included, however, little change may occur. PI Therapy encourages active problem solving, and through the completion of session activities and goal setting, encourages actual behaviour change. It is only with change that mood improvements occur.

At the end of the PI Therapy group or online program, recommendations for future intensive interventions will be provided if you have not experienced a total recovery. The stepped-care model is summarised in figure 1.2. However, it is assumed in PI Therapy that you must get the core foundations in place first before you proceed to more intensive and often costlier treatments. For most people, the foundational changes promoted in this program will be of sufficient intensity to lead to significant improvements in depressive, anxious, or other related symptoms. However, it is important to again highlight that change will only occur if you actively participate in treatment. This involves setting appropriate goals (we will cover how to do this later in this session) and then acting on them every week.



**Figure 1.2.** Stepped-Care Approach to Mental Health Recovery

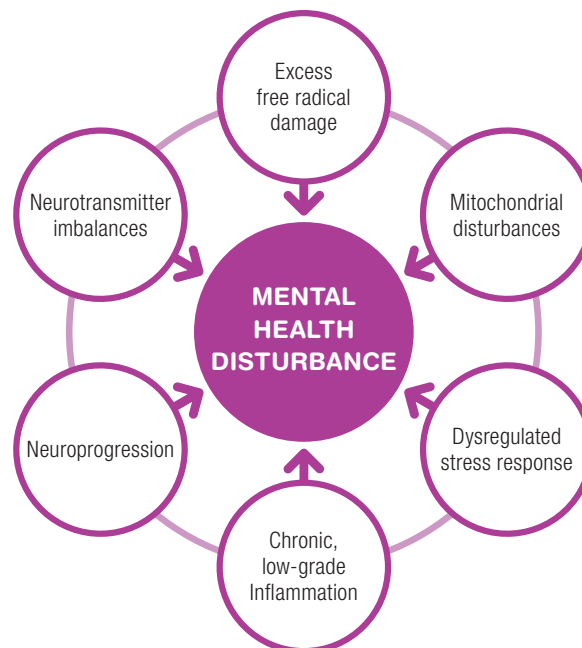
## Physiological Disturbances in Mental Health Disorders

Depression, anxiety, and other mental health disorders are associated with disturbances in several biological processes in the body. These are summarised in figure 1.3 and include:

- Neurotransmitter imbalances
- Dysregulated stress response
- Chronic, low-grade inflammation
- Excess free radical damage
- Mitochondrial disturbances
- Neuroprogression

Each of these processes all affect each other which can lead to an escalation of problems over time. For example, inflammation affects neurotransmitter balance, increases free radical production, affects mitochondrial function, and reduces important proteins essential for the growth and plasticity of neurons. Excess free radical production also exacerbates inflammation, affects mitochondrial function, damages brain cells and influences neurotransmitter production. All these inter-relationships can lead to a snowballing effect where disturbances intensify over time.

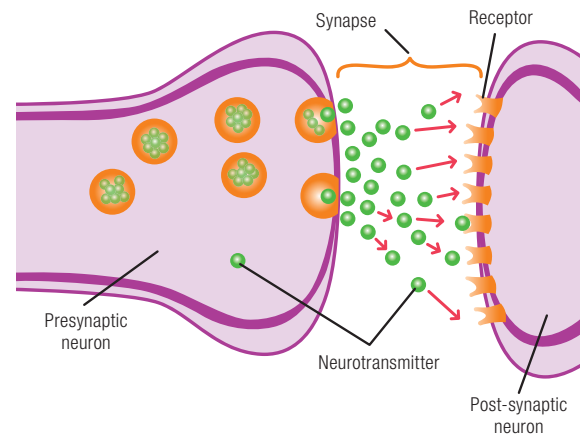
There is no simple way to improve all these physiological processes and that is why a multi-targeted approach is essential. Research has confirmed that many of these disturbances are influenced by psychological, dietary, environmental, and lifestyle factors, which is why changes covered in PI Therapy target these areas.



**Figure 1.3.** Physiological Disturbances in Mental Health Disorders

## Neurotransmitter Disturbances

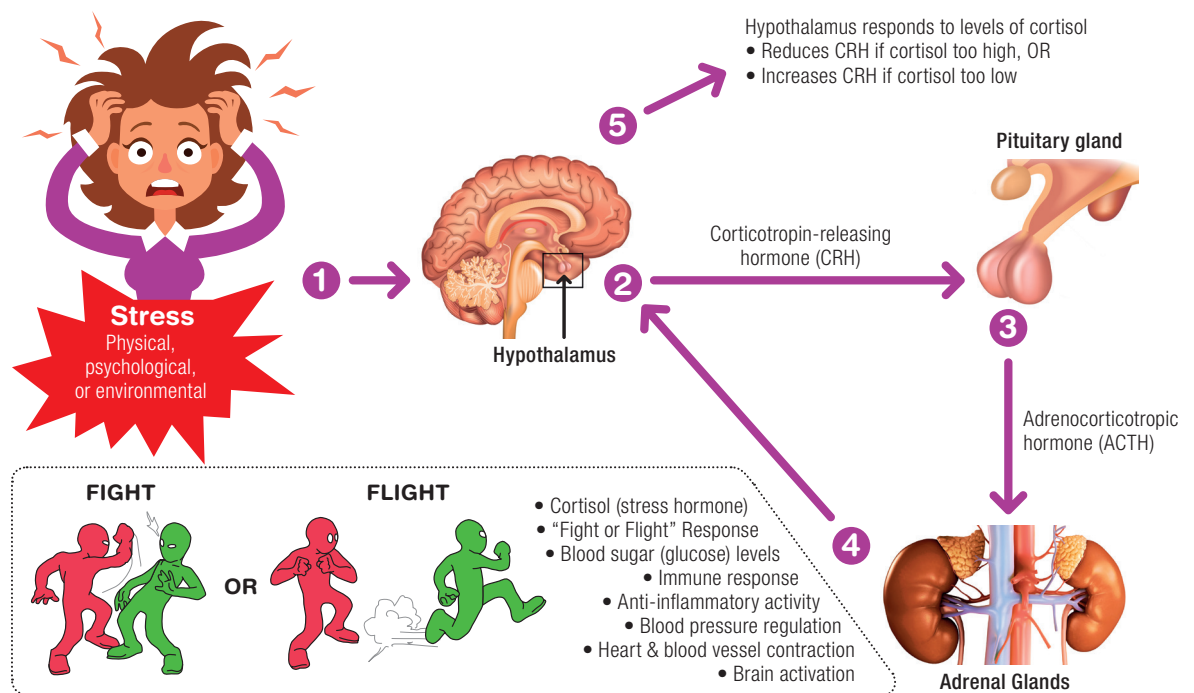
Neurotransmitters are chemicals that transmit signals across a synapse from one neuron (presynaptic neuron) to another, 'target', neuron (post-synaptic neuron). The neurotransmitter binds to a receptor on the post-synaptic neuron resulting in either an inhibitory or stimulatory action (neurotransmitters are stimulatory, inhibitory, or both). Neurotransmitters are important for cell-to-cell communication and too much, too little, or problems with receptors are associated with many diseases. Disturbances in neurotransmitter activity



are the most popular biological theory for mental health problems, and the reason for the popularity of psychiatric medications, particularly antidepressants. The most common neurotransmitters implicated in mental health disorders are:

- Serotonin – low levels are believed to result in anxiety and depression.
- Dopamine – this is our feel-good neurotransmitter. Low dopamine levels are associated with depression, attention problems, and addictions. High dopamine is linked with bipolar disorder and schizophrenia.
- Noradrenaline – low levels can lead to depression and attention problems, while high levels can increase anxiety.
- Gamma-aminobutyric acid (GABA) – low levels of this neurotransmitter are strongly associated with anxiety.
- Acetylcholine – this neurotransmitter is believed to affect memory and attention.
- Glutamate – excess levels of this neurotransmitter can increase anxiety and may be associated with schizophrenia and bipolar disorder.

## Dysregulated Stress Response



**Figure 1.4.** Hypothalamus-Pituitary-Adrenal (HPA) Axis Response (Fight or Flight Response)

Responding to stress is essential for our survival. It keeps us alive and helps us to respond instinctively to a stressor. This process, known as our 'fight or flight' response, helps us to deal with danger and is triggered by the communication between different

organs in our body. Areas of our brain known as the hypothalamus and pituitary gland instruct our adrenal glands to release hormones (e.g., cortisol) to help our body respond to the stress. This communication pathway is known as our HPA axis (Hypothalamus-Pituitary-Adrenal axis) and is summarised in figure 1.4. Cortisol has numerous functions in the body and typically during danger, helps our body to either ‘fight or flight.’

While this HPA axis response is imperative for our survival, many people with mental health problems have dysregulated HPA axis activity<sup>2</sup>. This could mean an overactive HPA activity, leading to excess levels of cortisol circulating in the body. Alternatively, some people can have an underactive HPA axis activity, which leads to insufficient levels of cortisol. When it comes to our HPA axis, balance is the key, not too much or too little.

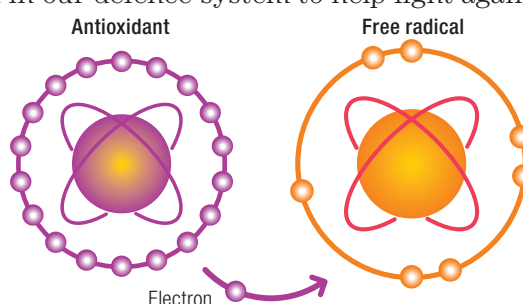
## Chronic, Low-Grade Inflammation

Inflammation is a necessary part of the body’s response to injury and infection. It consists of cellular responses that help protect us from pathogens (germs) such as bacteria, viruses, or fungi; external injuries like scrapes or foreign objects (for example a thorn in your finger); and exposure to chemicals or radiation. Without inflammation, we cannot fight disease or heal from infection or injury. An acute inflammatory response is associated with several signs including redness, swelling, pain, heat, and loss of function. However, mental health problems are associated with chronic, low-grade inflammation<sup>3</sup>. This inflammatory response can linger for months to years and may not be associated with any of the signs of acute inflammation. That is why it is often called ‘silent’ inflammation. Chronic inflammation can damage our bodily organs, with our brain being particularly susceptible.



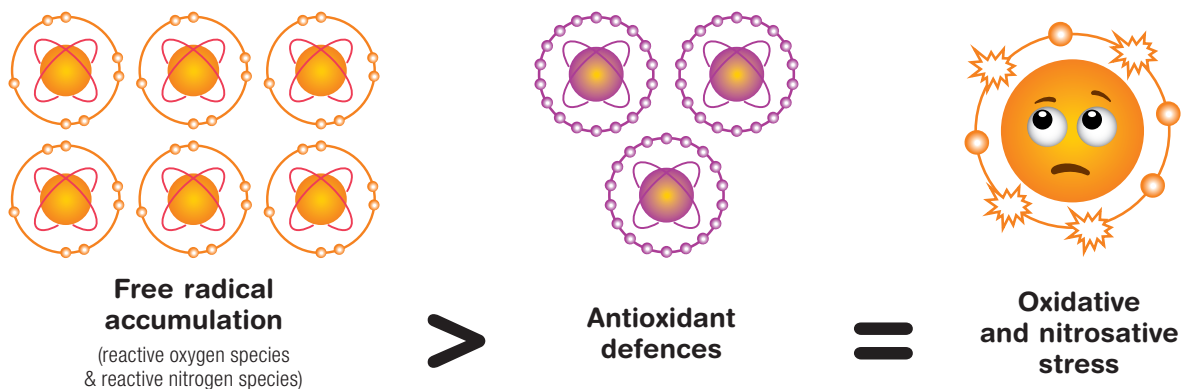
## Excess Free Radical Damage (Oxidative & Nitrosative Stress)

Free radicals are unstable molecules with an unpaired electron. They are produced during normal cellular metabolism and have several important functions in the body. For example, at low levels, free radicals are involved in our defence system to help fight against disease. However, at high levels, free radicals can cause damage to all our cells and organs. Excess free radical production can occur when we are exposed to a range of lifestyle and environmental factors. Fried foods, excess alcohol, tobacco smoke, pesticide exposure, excess sunlight exposure, and pollution all produce free radicals. High levels of stress and suffering from a medical disease such as diabetes, obesity, cancer, and/or cardiovascular disease can also increase free radicals. Many diseases are associated with increased inflammation which is also a potent inducer of free radical production.



To guard against free radicals, we require antioxidants. Antioxidants quench free radicals by donating an electron to stabilise the free radical. Antioxidants can be produced endogenously (within our body) or exogenously (outside our body). Endogenous antioxidants include many antioxidant enzymes such as superoxide dismutase, glutathione peroxidase, and catalase. Our body also produces antioxidants such as glutathione, alpha lipoic acid, and coenzyme Q10. We can also increase antioxidant levels in our body by consuming high-antioxidant foods. Vitamins C and E, selenium, zinc, and flavonoids are derived from an array of foods including fruits, vegetables, herbs, spices, nuts, and seeds.



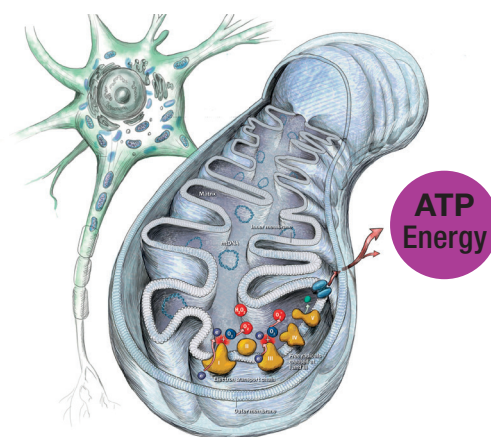


**Figure 1.5.** Oxidative and Nitrosative Stress

Unfortunately, many people with mental health problems have low circulating levels of antioxidants and produce too many free radicals<sup>4</sup>. This may be due to dietary, lifestyle, and/or environmental factors. Genetics can also play a part as many people may have genes that do not produce antioxidant enzymes efficiently. As shown in figure 1.5, when free radical production is greater than antioxidant defences, a state known as oxidative and nitrosative stress (O&NS) results. This leads to a deterioration in cellular and tissue activity over time. Our brain is particularly susceptible to the damaging effects of O&NS.

### Mitochondrial Disturbances

Mitochondria are one of many tiny structures located in our cells, known as organelles. Mitochondria have several functions but are most often known as the ‘engine room’ of our cells. Mitochondria are responsible for producing energy (ATP) to enable our cells and organs to function. Mitochondria are also involved in cell division, cell growth, cell death, and neuroplasticity. They also influence neurotransmitter production and via the process of producing ATP, are the main endogenous source of free radicals. Mitochondria are found in all cells although numbers vary based on the metabolic demand of the cells. Due to their high energy utilisation, our muscle, brain, and liver contain the highest number of mitochondria.



Mitochondrial disturbances have been found in people with mental health disorders<sup>5</sup>. This means that the energy production required for essential biological processes is impaired. When mitochondrial function is disturbed it can also result in excess production of free radicals, affect neurotransmitter levels, and damage brain cells.

### Neuroprogression

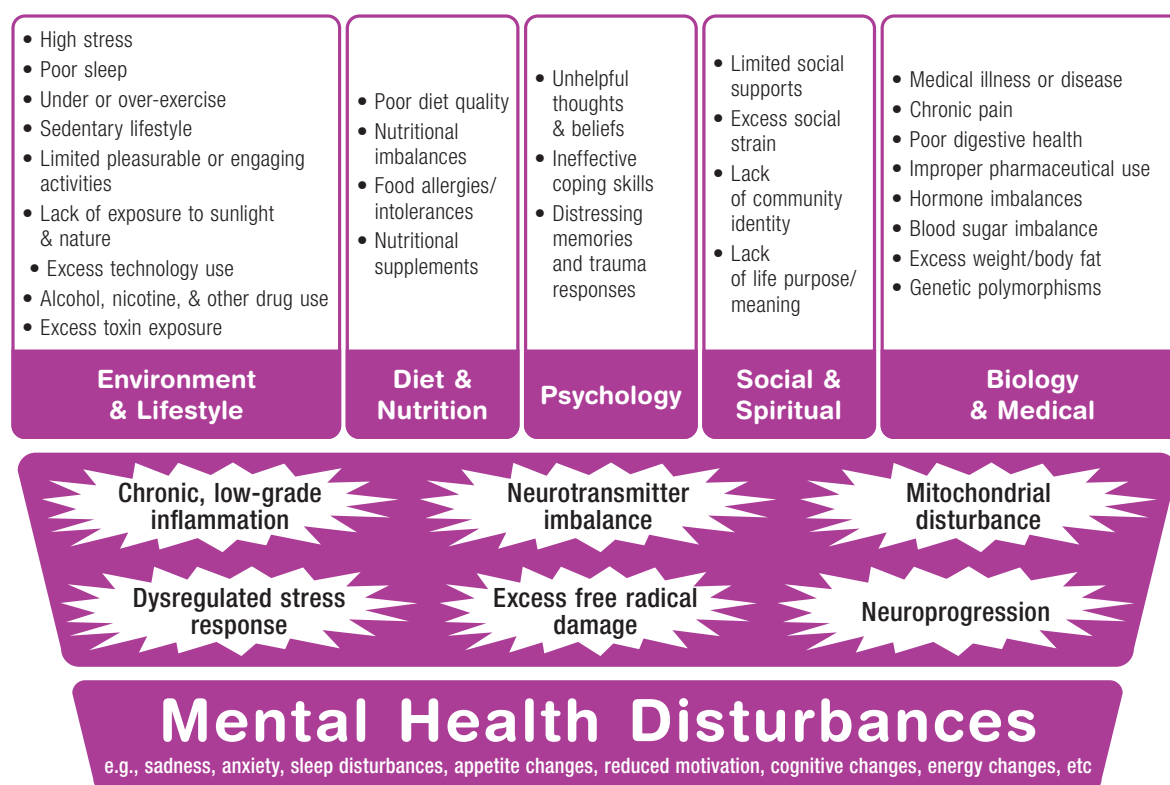
It was previously believed that when our brain is damaged, it is unable to repair itself. Whether the damage is from disease, an accident, or simply the process of normal ageing, neurons could not regrow. However, it has been confirmed that the brain is indeed plastic (known as neuroplasticity) and certain brain regions are able to regrow. Eating a healthy diet and engaging in regular physical activity are some ways to help rebuild the brain. This is because these activities increase levels of brain-building proteins known as neurotrophins. Neurotrophins are essential in supporting the growth, survival and differentiation of neurons. One



neurotrophin important for brain support is known as brain-derived neurotrophic factor (BDNF). Levels of BDNF have been found to be lower in people with psychiatric disorders<sup>6</sup>. As time progresses, having low levels of BDNF can negatively impact on the brain's ability to build and repair itself. In fact, studies have indicated that as the number of depressive episodes increases in adults, neuronal degeneration increases. The balance between neuronal repair and growth from neurotrophins is overrun by brain degeneration, leading to a state of 'neuroprogression.' Mental health disorders are associated with reductions in brain volume, and there are volumetric changes in various brain regions including the hippocampus, amygdala, prefrontal cortex, anterior cingulate, and basal ganglia.

## How To Normalise Physiological Disturbances

It is often incorrectly believed that the only way to treat biological problems is by using biological or medical interventions. However, this could not be further from the truth. While many of the physiological disturbances associated with mental health problems are influenced by medical and physical factors, they can also be strongly affected by lifestyle, environmental, social, psychological, and dietary behaviours and habits<sup>7</sup>. In figure 1.6, components of PI Therapy are detailed. All these components have a significant effect on one or more physiological disturbances. Consequently, by making positive changes in these areas you will be able to normalise your biology.



**Figure 1.6.** Integrative Influences On Mental Health Problems

## Diet and Nutrition

Research into the relationship between diet and mental health has confirmed that what we eat can have a significant effect on our mood and overall mental wellbeing<sup>8</sup>. Eating a healthy diet can reduce the risk of ever suffering from depression and anxiety, and may effectively improve mood in people already suffering from these conditions. In terms of healthy diets, most of the research has investigated the effects of a Mediterranean-based

diet on depression and anxiety. The findings so far have been impressive. People who eat a traditional Mediterranean diet have a significantly reduced risk of suffering from depression, anxiety, and even the more chronic mental health disorders such as schizophrenia and bipolar disorder. A Mediterranean diet is comprised of a high intake of fruits, vegetables, whole grains, legumes, nuts, olive oil, herbs and spices; a moderate intake of fish, poultry, eggs, cheese, yogurt, and red wine; low red meat consumption; and an infrequent intake of sugary and processed foods. On the other hand, eating a Western diet comprising packaged and processed meals; foods high in added sugar; fast-food, soda drinks, and a limited fibre intake, increases the risk of mental health problems. Given the strong link between the body and brain, what we eat not only affects our physical health but also has a profound impact on our mental health.

LOWER risk of depression and anxiety associated with HIGHER intake of:	HIGHER risk of depression and anxiety associated with HIGHER intake of:
<ul style="list-style-type: none"> <li>✓ Mediterranean-type diet</li> <li>✓ Fish</li> <li>✓ Fruits and vegetables</li> <li>✓ Whole grains</li> <li>✓ Olive oil</li> <li>✓ Low-fat dairy foods</li> <li>✓ Anti-inflammatory foods</li> <li>✓ Foods high in antioxidants</li> <li>✓ Moderate caffeine intake (depression)</li> <li>✓ Dietary flavonoids (compounds that occur naturally in plant foods including fruits, vegetables, grains, herbs, and beverages)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Red and/or processed meat</li> <li>✓ Refined grains</li> <li>✓ Sweets</li> <li>✓ Take-away foods</li> <li>✓ High-fat dairy products</li> <li>✓ Soft drinks</li> <li>✓ Energy drinks</li> <li>✓ Inflammatory foods</li> <li>✓ Artificial additives and sweeteners</li> </ul>

## Mood-Lifting Nutrients

Our mood is not only affected by the quality of our diet but can also be influenced by our body's nutritional balance. If we are low in essential nutrients it will greatly impact our body's ability to produce mood-lifting hormones and neurotransmitters. Additionally, an excess intake of certain nutrients can adversely affect our mental health. Although all nutrients are likely to have an influence on our mental health, some of the primary nutrients are listed below:

- **B-vitamins** – these have hundreds of roles in the body and low levels of most B-vitamins have been found in people with depression and anxiety. Vitamins B<sub>3</sub>, B<sub>6</sub>, and B<sub>12</sub> are particularly important for mental health.
- **Folate** – while this is a type of B-vitamin (vitamin B<sub>9</sub>) it is often discussed separately to the other B-vitamins. Folate is often low in people with depression, and supplementing with folate may have a positive effect on mood. Some people have genes (known as a polymorphism) that reduce their ability to convert folate into its active form in the body. This disturbance is called a methylenetetrahydrofolate reductase (MTHFR) polymorphism. Folate needs to be converted into its active form to be used by most enzymes in the body.
- **Magnesium** – this mineral is essential for the activity of hundreds of enzymes in our body. Low magnesium levels have been found in people with depression and anxiety. Magnesium levels may be low due to a low dietary intake, although high stress (physical or mental) can also reduce magnesium stores. Magnesium supplementation can also have positive mental health effects.
- **Zinc** – this is another mineral required for hundreds of enzymatic reactions in the body. Low zinc levels have been found in people with depression. There has not been a lot of research investigating the effects of zinc supplementation on mood, although given its multiple roles in the body, having adequate levels is likely to be important.

- **Omega-3 fatty acids** – this nutrient is derived mostly from fish but is also found in nuts and seeds. There has been a great deal of research examining the role of omega-3 fats on mental health with most of it confirming its crucial role. Lower omega-3 levels have been found in people with depression and other mental health disorders. Most of the clinical trials investigating the effects of supplementation with omega-3 fish oil have been positive.
- **Iron** – low levels of iron can affect energy levels as it is required for the transport of oxygen throughout the body (it is a component of haemoglobin, the oxygen-carrying protein in red blood cells). When iron levels are clinically low, a diagnosis of iron-deficient anaemia results. Children, menstruating women, and older age adults are more susceptible to low iron levels. People on vegetarian diets are also at increased risk of low iron levels.
- **Vitamin D** – deficiency of vitamin D, which is mainly derived from the sun, can have a negative effect on mood. Low levels have been found in people with depression and may increase the risk of seasonal depression (often referred to as the winter blues).
- **Protein/ amino acids** – when we eat protein our body breaks it down into amino acids. Amino acids are the building blocks of mood-lifting neurotransmitters such as serotonin and dopamine. In particular, the amino acids tryptophan, tyrosine, and phenylalanine are important for mood. Research has shown that if you expose a person with a history of depression to a diet low in tryptophan (required for serotonin production), it significantly increases his or her risk of relapse.

These are the primary nutrients that can affect our mental wellbeing, although this list is not exhaustive. Being deficient, or having excess levels of most vitamins, minerals, fats, and amino acids, are likely to affect our mental and physical wellbeing. Other nutrients of note include copper (excess levels in particular), selenium, coenzyme-Q10, vitamin E, and calcium.

## ACTIVITY 1

### How is Your Dietary Intake of Mood Lifting Nutrients?

1. Complete the “Sources of Mood-Lifting Nutrients Checklist” on the next page to examine your daily intake of these important nutrients.
2. Each column is allocated a number from 0 to 3. After you have completed the checklist, add up your total score. The maximum score is 39.

How good is your intake of mood-lifting nutrients? Refer to the categories below as a guide:

- **25 and over:** your overall balance of nutrient intake seems GOOD (although make sure you review your intake of SPECIFIC nutrients to determine any potential deficiencies)
- **19-24:** your overall balance of nutrient intake seems SOUND but not great (make sure you review your intake of SPECIFIC nutrients to determine any potential deficiencies)
- **13-18:** your overall balance of nutrient intake seems LOW (make sure you review your intake of SPECIFIC nutrients to determine any potential deficiencies)
- **0-12:** your overall balance of nutrient intake seems VERY DEFICIENT (make sure you review your intake of SPECIFIC nutrients to determine any potential deficiencies)