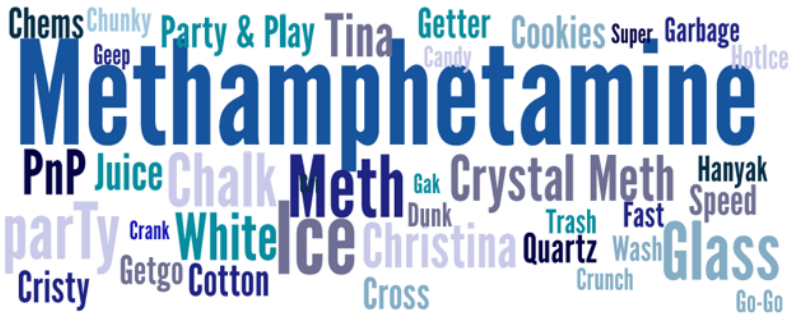
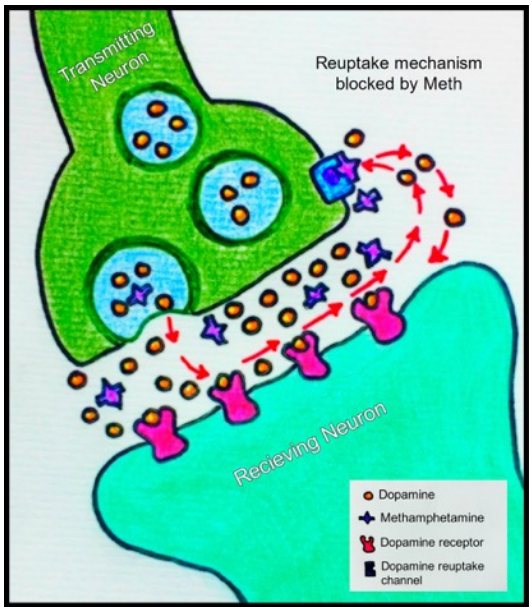
PINK THERAPY
Working with gender, sexuality and relationship diversities



Action & Effect

Taking Meth causes an increase of some neurotransmitters in the brain, principally Dopamine. It does this by stimulating the release of newly synthesised Dopamine from brain cells (neurons), and by blocking the mechanism which normally absorbs any surplus. Smoking or injecting (slamming) the drug causes the greatest surge in Dopamine levels.



Dopamine acts on the parts of our brain responsible for motivation and reward-seeking and feels highly pleasurable. We feel less inhibited and more connected. As a result, the desire to repeat the behaviour responsible for achieving this feeling creates strong neurobehavioural reinforcement- highly addictive!

Meth also affects adrenal function, increasing Cortisol, Adrenaline and Noradrenaline - our stress hormones - affecting the cardiovascular system; temperature regulation; metabolism; decreasing appetite and reducing the need or desire for sleep.

Issues Associated with Meth Use

- Dopamine deficiency: after use, depletion of Dopamine causes feelings such as fatigue, lack of motivation, inability to experience pleasure, low libido, difficulty concentrating, and lack of connection with others.
- Brain changes: Long-term or regular use can damage the receptor sites of neurotransmitters, such as Dopamine.
- Adrenal fatigue: over-stimulation of the adrenal glands disrupts healthy functioning of stress hormones causing sleep disturbance and low energy. Adrenal dominance also effects sex and thyroid hormone production.
- Malnutrition: a prolonged reduction in appetite resulting in low food intake can cause low nutrient levels; weight fluctuations can also result from drastic changes in calorie consumption based on usage.

An Holistic Nutritional Approach

Whilst there are some specific areas to address in the nutritional support of Meth use (overleaf), it is important to integrate this advice within a broader health context. Our bodies function as an interlinking, dynamic organism and we can't isolate certain functions to 'fix' them. As with all drug use, Meth effects the entire organism in a multitude of ways and has implications for many of our bodies systems.

As all vitamins and minerals are involved in the many systems effected (cardiovascular, digestive, neurological, hormonal), a good quality iron-free multivitamin such as Biocare's Once-a-Day for Adults is recommended, alongside a varied, nutrient dense diet and adequate rest during non-party periods.

Folic Acid

▶ What is it? Folic Acid is a water-soluble B-vitamin, essential for our cell function.

▶ How is it utilised? There are two indications for Folic Acid in supporting us in Meth use. Firstly, Folate is the chemical required for the correct functioning of the Dopamine receptors that get damaged from Meth use; low Folate reduces activity at the Dopamine receptor sites. Secondly, Folic Acid is a co-factor in the production of Dopamine. It's one of the chemicals needed to help convert the amino-acid Tyrosine into Dopamine, thus Folic Acid deficiency can cause low conversion rates.

▶ How should I get it? Folic Acid is widely available in foods such as beans and lentils, dark green vegetables, nuts and citrus fruits and fruit juice. A good quality multivitamin will ensure your daily quota is met.

Omega-3 Fatty Acids

▶ What are they? Omega-3's are a particular type of fat essential for many bodily functions, particularly brain and cell function. Our body cannot make these fats so it is essential we consume enough of them.

▶ How is it involved? Omega-3 deficiency results in low brain levels of Dopamine and another important neurotransmitter, Serotonin. This is likely due to the role Omega-3's play in receptor functioning and the chemical pathway of dopaminergic and serotonergic systems.

▶ How should I get it? Omega-3 is abundant in oily fish such as salmon, fresh tuna and mackerel. However, adequate levels are hard to achieve through diet alone, especially as our modern diets include plenty of other types of fats, which alter the bodies ratios, lowering the percentage of Omega-3 fatty acids comparatively. Therefor, if your diet is low in oily fish or high in vegetable and meat fats, a good quality Omega-3 supplement is recommended

Vitamin-A

▶ What is it? Vitamin A is a fat-soluble vitamin group, also know as Retinol.

▶ How is it used? Retinol stimulates the production of Dopamine receptors in the brain and may help receptor damage recovery. Brain scans show that where there is high levels of Retinoic Acid, there is an up-regulation of activity at the Dopamine receptor level.

▶ How should I get it? A typical diet usually provides enough Vitamin A, however, a good multivitamin can help support diets lacking in nutrient dense foods. Foods high in Vitamin A are carrots, sweet potatoes, squash, liver and fish.

Protein

▶ What is it? Protein is a macronutrient made up of Amino Acids, which are the building blocks for every cell in the body.

▶ How is it implemented? Amino Acids are the compounds that cross-over into our brain to synthesise neurotransmitters. The precursor to Dopamine is the Amino Acid Tyrosine. Whilst studies have shown that increasing Tyrosine has no effect on Dopamine production, it is important to understand that other Amino Acids compete to enter the brain. Therefore, if there is a high level of Branch Chain Amino Acids (found in protein powders and bulking products), the amount of Tyrosine able to cross-over into the brain may be reduced, affecting Dopamine synthesis.

▶ What should I do about it? The body needs a good and consistent supply of varied proteins for almost every function. The best way to achieve this is by avoiding any specific protein supplements, and consuming 20g of various types of good quality animal or vegetable protein three times a day, such as: meat, fish, nuts, tofu, lentils, beans, eggs.