

Thiamine also known as Vitamin B1 is an essential nutrient required by all tissues in the human body including the brain where it is involved in the repair of damaged brain cells.

We cannot produce thiamine so we need to ingest with our diet or take as a medication. Foods containing thiamine include:

- Fish (Trout, Salmon, Tuna, Mackerel)
- Pork
- Nuts (Macadamia, Pistachio, Brazil nuts, Pecan, Cashew)
- Seeds (Sunflower, Pumpkin, Squash)
- Bread (Wheat bread, wheat bagel, wheat English muffin, Rye bread)
- Vegetables (green peas, frozen sweetcorn)
- Squash (Acorn, Hubbard, Butternut)
- Asparagus (uncooked, cooked, frozen)
- Dry Roasted Soya Beans (Edamame, Black Beans, Mung Beans)
- Marmite

Alcohol is high in calories and can suppress the appetite; this can result in poor dietary intake making it difficult to include thiamine in our daily diet.

Alcohol can cause us to become deficient of thiamine not only because of poor diet but also because alcohol interferes with the absorption of thiamine in the body. In fact, it blocks the absorption of thiamine from the gut.

Thiamine has another important role in the body in relation to releasing stored energy. Ironically when a person is in alcohol withdrawal our body demands large amounts of thiamine to release energy to cope with the withdrawal. As a result the small amount of thiamine it does have gets diverted to energy release and away from nerve cell repair.

If you become deficient in thiamine you are at risk of:

- Peripheral Neuropathy (numbness, pins and needles, burning sensations or pain in hands feet and legs because of damage to nerves in the limbs)
- Wernicke's Encephalopathy (confusion, gait problems, double vision as a result of damage to brain cells during withdrawal).
- Korsakoff's Psychosis (memory loss as a long term consequence of brain cell damage)
- Cardiac failure

GSSMS recommends your GP prescribe oral thiamine 100mg to take three times a day. This is an important part of treatment.

Thiamine tablets may not be enough thiamine, especially if you undergo an alcohol detox. At GSSMS thiamine can be given as an injection into the muscle over a five day period. This injection is in the gluteal muscle (in the bottom) and due to the volume of liquid (7mls) it can be uncomfortable.

The risk of an allergic reaction (anaphylaxis) is rare: 1 in 5 million for IM injection.

Research suggests that up to 20% of chronic drinkers can develop Wernicke's Encephalopathy and in 17% of cases can be fatal. Of the survivors, 85% go on to develop Korsakoff's Psychosis. The best way to guard against development of these conditions (known together as Alcohol Related Brain Damage) is to work with GSSMS to safely detox from alcohol and to ensure you have enough thiamine.

GSSMS recommends thiamine but cannot enforce it, therefore we have a thiamine refusal form that can be signed and placed in your clinical records.

**"This document is available in Welsh /
Mae'r ddogfen hon ar gael yn Gymraeg".**