

Riboflavin and Thiamine fact sheet

What are riboflavin and thiamine?

Riboflavin (B2) and thiamine (B1) are water-soluble vitamins that occur naturally in foods. Riboflavin and thiamine can be taken as vitamin supplements.

How will they help me?

Some people with mitochondrial disorders really respond to riboflavin and thiamine taken by mouth in pill form. They may experience fewer symptoms of the disorder as a result of taking this supplement. Both vitamins are essential in energy production in the body. Both vitamins act as antioxidants, protecting the body's cells from free radical damage.

One possible cause of migraine headaches is a reduction in energy production within the mitochondria of cerebral blood vessels. Riboflavin in particular, has been shown to be helpful in the prevention of migraine headaches by increasing energy production in the mitochondria.

How much should I take?

A dose of 100 mg of riboflavin and 100 mg of thiamine a day is generally recommended for mitochondrial disorders, although other dosing regimes are also reported.

When should I take them?

Riboflavin and thiamine can be taken with or without food at any time of day. Take them with a large glass of water to help them to be absorbed.

How quickly will I notice a difference in my symptoms?

It may take up to 3 months to see any improvement in symptoms. **It is very important that you keep track of your symptoms on the symptom diary sheet given to you at the clinic.** This will help both you and your doctor to see if riboflavin and thiamine are helping you. If you did not receive a symptom diary sheet, please call the clinic at 604-875-5965 and we will send one to you.

Where do I get them?

Riboflavin and thiamine can be obtained from health food stores and pharmacies. They may be sold as vitamins B1 and B2.

Will my health plan cover them?

No. Unfortunately, health plans do not currently recognize vitamins as prescription medication.

How much will they cost?

Riboflavin and thiamine vary in price. It is always advisable to "shop around" to get the best price.

Ask at vitamin/natural food stores if they will give a discount for buying more than one container of capsules/tablets at a time

Are there any side effects?

Side effects are uncommon, even at the high doses prescribed for people with mitochondrial disorders. Riboflavin will cause your urine to turn bright yellow. This is a harmless side effect.

Where should I keep the vitamins?

Keep them in a cool place, away from light.

Please note: If a **muscle biopsy** has been scheduled for you, please do not take the B vitamins for a month prior to the biopsy. Once you have the biopsy, you may resume taking them.