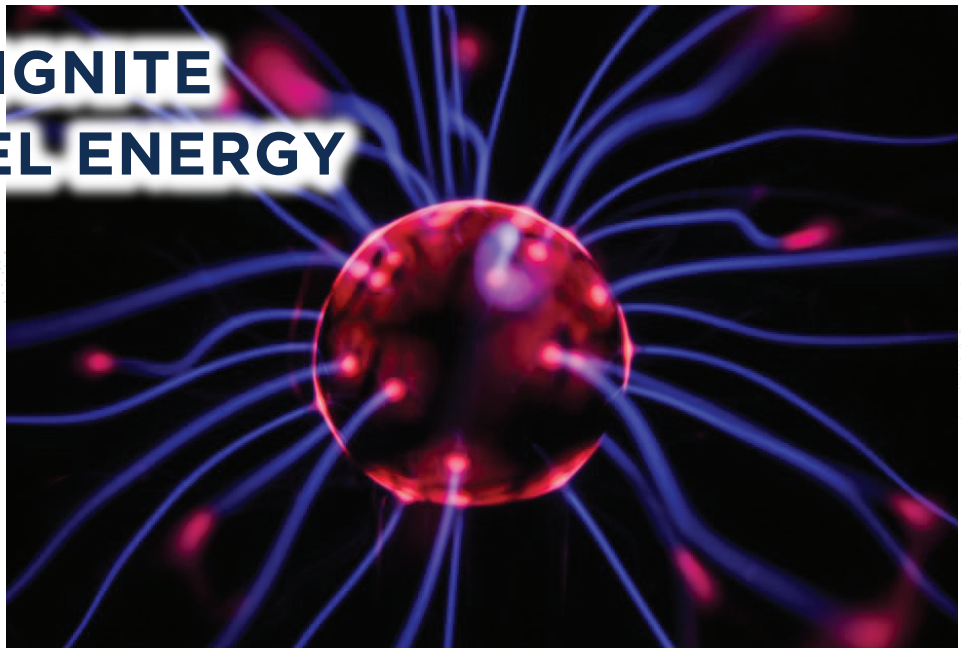
QUICKSILVER SCIENTIFIC

UNCOVER AND IGNITE CELLULAR-LEVEL ENERGY



The goal of a good cardiometabolic program is to elevate your metabolic bottom line by supercharging energy production and cellular function. A well functioning metabolism supports efficient energy production and cellular health. So how do we arrive at a cleaner burning system? First by supporting mitochondria, your cells' most critical energy organelle.

3 Ways To Support Your Energy

The cardiometabolic changes taking place in your body begin deep in your mitochondria, the tiny yet mighty energy "factories" in your cells. Mitochondria are responsible for generating the cellular fuel, or ATP, required to drive nearly every biochemical process. Vibrant mitochondrial health and energy hinge on three key factors:

1.) NAD+ levels **2.) Methylation** **3.) Sirtuin activity**

NAD+ (nicotinamide adenine dinucleotide) is a crucial coenzyme found in all living cells. It plays a fundamental role in supporting mitochondrial health and energy. Unfortunately, NAD+ levels decline with age, stress, and poor health. Through supplementation and simple lifestyle hacks, you can work to optimize your levels of this vital mitochondrial molecule

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Methylation occurs when your body attaches chemical groups called methyl groups (-CH3) to molecules, affecting their activity in your body. Methylation is an essential element of the NAD+ cycle. Without sufficient methylation, byproducts can build up and hinder NAD+ generation, dampening energy levels. By supporting methylation pathways, you help keep your NAD+ levels up. (See Figure 1)

Sirtuins are a family of seven proteins that regulate numerous processes in the body, including mitochondrial health. A variety of natural compounds, such as resveratrol and quercetin, have been found to support sirtuin activity.

Hacks to Maximize Your Mitochondrial Potential

Along with specific Quicksilver Scientific supplements, you may want to try some simple lifestyle hacks such as fasting and high-intensity interval training (HIIT) to maximize your mitochondrial potential. Fasting and HIIT both increase NAD+ levels in the body, supporting mitochondrial health.

For more information on selecting the right fasting routine for your needs, check out this informative article from Zero, a clever fasting tracking app.

To find a HIIT class that you can join online at home, check out the extensive offerings at Daily Burn.

Where Should I Dedicate My Newfound Energy?

Ready to leverage some of your game-changing energy? Here are some ideas:

- Step up your exercise routine: As your energy ramps up, consider funneling it into a more intense exercise routine. Whatever your workout of choice, try taking it to the next level in intensity or duration.
- Engage in a longer fast: As your cellular and metabolic health continue to improve, you may find it easier to fast for more extended periods. This is the perfect opportunity to really reboot that metabolism with a 24- or 36-hour fast.
- Give a ketogenic diet a try: The protein- and fat-fueled ketogenic diet takes some serious planning and dedication. However, done right, it can give your mitochondria a major boost.

Did You Know...

Exercise is a "tonic" for your mitochondria? Research shows that the muscular contraction involved in exercise initiates turnover — replacing old, dysfunctional mitochondria with new, healthy energy factors. If you haven't already begun an exercise routine, there's no better time than the present! Get your body moving, and your mitochondria will thank you.

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INTERDEPENDANCE OF NAD+ AND METHYLATION CYCLES

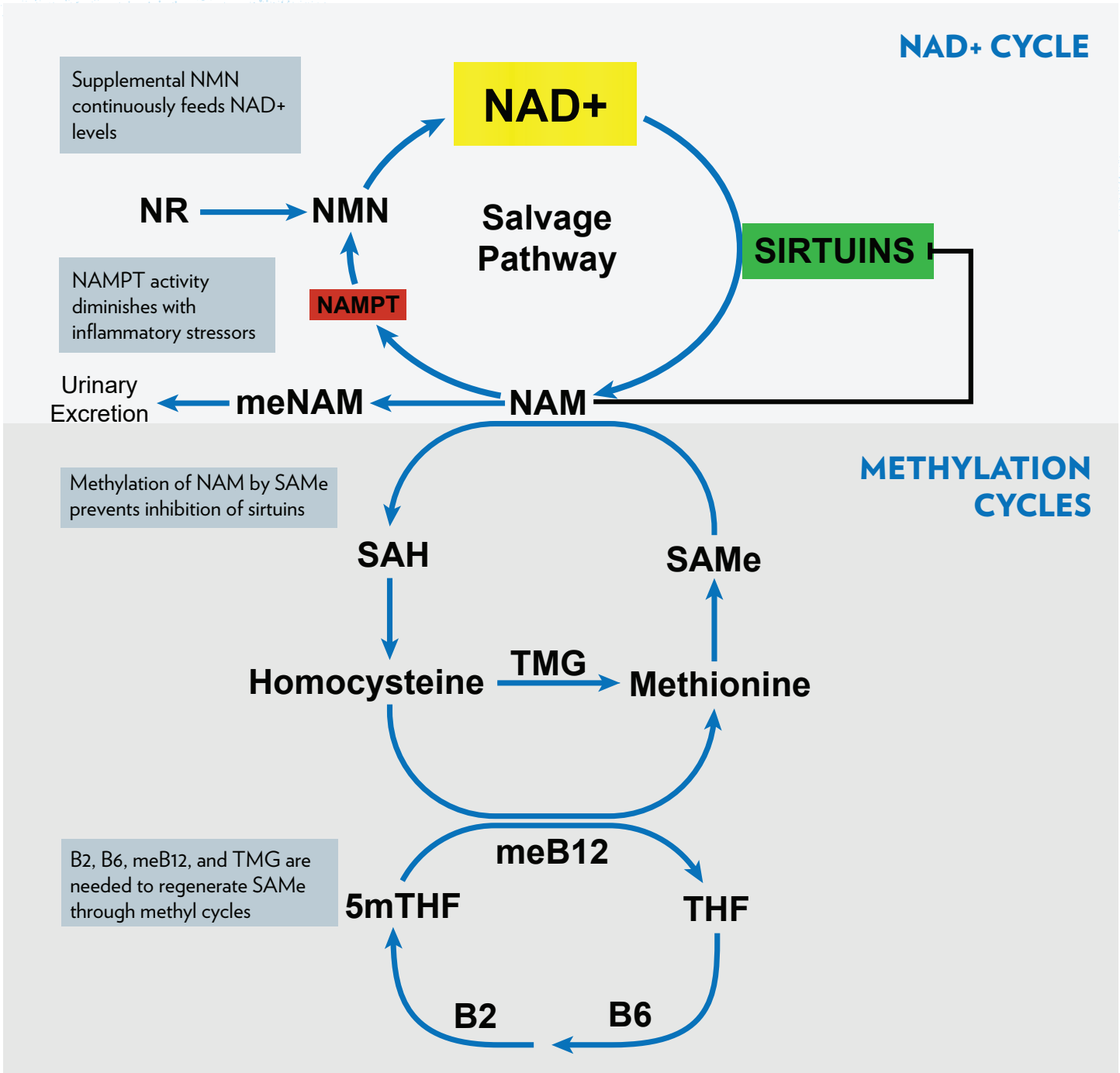

Figure 1: The salvage pathway recycles NAD+ using NAM (a form of vitamin B3). If too much NAM pools up, it blocks sirtuin activity. Methyl donors are used from SAMe to methylate NAM so it can be removed through urinary excretion. The more NAD+ produced, the more methylation support is needed to keep the process moving.