

The Ultimate Guide to Methylene Blue

*Remarkable Hope for Depression, COVID, AIDS & other Viruses,
Alzheimer's, Autism, Cancer, Heart Disease, Cognitive ... Targeting
Mitochondrial Dysfunction*



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& other Viruses, Alzheimer's, Autism, Cancer,
Heart Disease, Cognitive Enhancement, Pain &
THE GREAT TRANSITION TO METABOLIC MEDICINE

MARK SLOAN

Introduction

- Methylene blue is an organic dye that was first created in 1876 for use in the textile industry to stain wool.
- In 1880s, scientists discovered that methylene blue could stain and highlight cells and microbes to help visualize them under a microscope. It is still used this way today.
- Methylene blue is considered a safe and effective antimicrobial and antifungal treatment for fish and aquariums.
- Veterinarians use methylene blue to treat methemoglobinemia (a blood disorder) in various animals including cattle, cats, dogs and horses.
- In human medicine, methylene blue is most commonly used as an antidote treatment for drug overdoses and chemical poisonings in emergency rooms.

How Methylene Blue Works

- Methylene blue improves mitochondrial function and cellular metabolism in several ways:
 - Increases oxygen consumption and ATP energy production
 - Increases glucose consumption
 - Increases NAD/NADH ratio
 - Decreases lactic acid production
 - Has antioxidant effects like vitamin E
 - Inhibits monoamine oxidase (MAO)
 - Acts as an alternative electron carrier to bypass problems in electron transport chain
 - Inhibits nitric oxide and estrogen

Top 10 Benefits of Methylene Blue

1. Antidote for Chemical Poisonings and Overdoses
 - Used in hospitals to treat methemoglobinemia caused by drug overdoses or ingestion of toxins like cyanide.
 - Works by allowing red blood cells to transport oxygen again.
2. Potential Antimalarial Properties
 - Was first ever antimalarial drug, used to treat malaria in late 1800s/early 1900s.
 - Recent revival in research as it's found to kill drug-resistant malaria parasites.
3. Antiviral Abilities
 - Shown to inactivate herpes, HIV, zika, hepatitis C, west nile, COVID-19 and more, especially in combination with light therapy.

4. Protects Against Dementia
 - Improves metabolic activity and protects mitochondria in the brain.
 - Clinical trials show it can stop progression of Alzheimer's disease.
5. Enhances Cognition
 - Single doses shown to improve memory, attention span and emotional regulation.
 - Chronic use investigated as nootropic brain enhancer.
6. Treats Depression
 - Outperforms SSRIs/antidepressants without side effects.
 - Shows success in trials for bipolar disorder.
7. Potential Autism Treatment
 - Growing evidence links autism to problems with cellular metabolism.
 - Methylene blue bypasses problems in electron transport chain.
8. Pain Relief
 - Provides pain relief for headaches, surgery recovery, arthritis and more.
 - Used directly on nerve pain. Highly effective for low back pain.
9. Cardioprotective
 - Excess nitric oxide damages heart over time. Methylene blue inhibits nitric oxide.
 - Improves function of aged blood vessels and can reverse damage from heart attacks.
10. Potential Cancer Treatment
 - Selectively boosts metabolism of cancer cells over normal cells.
 - Restores normal oxidation; causes cancer cell apoptosis without chemo.
 - Extremely promising results, especially combined with light therapy.

The Methylene Blue Battery

- Methylene blue wastewater from textile mills is highly polluting.
- Scientists created battery prototypes reusing this wastewater.
- Methylene blue batteries achieve near-perfect charging/discharging efficiency.
- Better than commercial batteries; non-toxic and inexpensive.

Animals and Methylene Blue

- Very safe; commonly used to disinfect fish tanks from fungi/parasites.
- Treats methemoglobinemia in cats, dogs, horses, cows, etc.
- Also shows promise treating other veterinary illnesses and conditions.

Safety, Dosage and Use

- Pharmaceutical grade is safer than industrial grade.
- Very safe at low doses (less than 2mg/kg bodyweight).
- Higher doses can have opposite effects. Start with 10mg daily dose.
- Don't take with SSRI antidepressants; avoid while pregnant/breastfeeding.

Conclusion

- Mitochondrial dysfunction underlies aging, disease and cell mutation.
- Methylene blue uniquely improves mitochondrial function like no other medicine.
- Research shows exceptional potential healing many conditions safely.
- Poised to transform medicine as more studies demonstrate capabilities.

Key takeaways:

1. Methylene blue has been used since the late 1800s as a dye, microscope stain and early anti-malarial drug.
2. It helps treat many illnesses by positively impacting cellular metabolism and mitochondrial function in several ways.
3. The top 10 uses researchers are studying include treating chemical poisoning, malaria, viruses, dementia, mood disorders, autism spectrum disorder, pain, cardiovascular issues and cancer.
4. Methylene blue targets complex IV in the mitochondrial transport chain, but also can act as an electron carrier for complexes I-III, bypassing defects or blockages in cellular energy production.
5. Extremely promising research shows it protects against dementia and Alzheimer's disease by metabolically enhancing the brain and clearing out neurotoxic amyloid plaques and tau tangles.
6. Multiple studies confirm it has fast-acting antidepressant and mood-stabilizing abilities that outperform SSRI drugs, without side effects.
7. It holds promise for autism spectrum disorder since research links autism with dysfunctional mitochondrial metabolism that methylene blue addresses.
8. Incredibly effective at quelling nerve pain when used on targeted areas; also helpful for arthritis pain and headaches linked to nitric oxide.

9. Cardioprotective effects relate to inhibiting nitric oxide, which damages heart tissue over time leading to cardiovascular disease.
10. Metabolic defects are universal in cancer cells; methylene blue restores normal cellular oxidation and induces natural cancer cell death without chemo drugs.
11. It has exceptional potential for many "incurable" diseases since all chronic diseases involve metabolic dysfunction at their root according to new research.
12. Only non-toxic antidote for drug overdoses & chemical poisoning like cyanide, prescribed in hospitals (works by restoring red blood cell function).
13. One of the most effective and fast-acting antimalarial treatments ever found according to new analysis.
14. Powerful antiviral against herpes, HIV, hepatitis C, west nile, Ebola, zika, COVID-19, especially paired with light therapy.
15. Improves focus, mood, memory and attention span by metabolically enhancing mitochondria; investigated as a nootropic.
16. Far safer and more effective than antidepressant drugs since it targets root causes, reduces inflammation and inhibits nitric oxide buildup.
17. Very safe at low doses with few side effects compared with pharmaceuticals; dose-dependent hormetic response.
18. Repurposed as an inexpensive, non-toxic battery achieving near 100% charging efficiency, outperforming commercial batteries.
19. Commonly and safely used as an aquarium treatment for fish diseases, parasites and fungal infections.
20. Also widely used off-label by veterinarians to treat methemoglobinemia and other conditions for pets, livestock animals.

Excerpts:

1. "Methylene blue is always present as the main antidote required in emergency and critical care units."
2. "Add a couple of drops of methylene blue to a glass of milk, and the methylene blue will slowly decolorize in proportion to the amount of oxygen in it. The less oxygen (the closer to spoiled), the more quickly the blue color will disappear."
3. "In very low doses, methylene blue possesses powerful antiviral activity against SARS-CoV-2."
4. "Treatment with 8mg-16mg MB daily reduced cognitive decline by more than 85%! That is the perverted medical profession's way of saying that MB effectively stopped AD [Alzheimer's Disease] in its tracks."

5. "The mean pain scores were significantly lower and the use of paracetamol was also significantly less in the methylene blue group during the first three postoperative days."
6. "Animal and human studies have suggested that the optimal daily dose of MB lies between 0.5 and 4.0 mg/kg of body weight."
7. "If a fart can go through your underwear, a virus can go through a mask."
8. "Methylene blue has antidepressant, anxiolytic, and neuroprotective properties... Particularly promising results have been obtained in both short- and long-term treatment of bipolar disorder."
9. "The condition is essentially a type of high blood pressure in the lungs."
10. "Do people know that our health depends on the level of carbon dioxide in the body?"
11. "The idea that if you increase the diameter of the blood vessels by increasing your nitric oxide, you're going to reverse brain aging by getting more blood circulating. It does help the brain to function by circulating more blood through it, but the problem is that nitric oxide, at the same time, is blocking the ability to use the oxygen."
12. "If you are not your own doctor, you are a fool."
13. "Health is the greatest of human blessings."
14. "In its current manifestation, gene therapy is an elegant concept crudely executed."
15. "What we potentially have is a wonder drug."
16. "Never has the world been more in need of safe and effective remedies for alleviating the root cause of depression."
17. "We believe that this work could set the stage for an alternative route for wastewater management, paving a path to a green-energy storage technology."
18. "As of now, the field of science that offers by far the greatest promise for the future of humanity is the science of life at the most basic cell and below- cell level."
19. "If we learn to see problems in terms of a general disorder of energy metabolism, we can begin to solve them."
20. "The various dysfunctions we measured are probably even more extreme in brain cells, which rely exclusively on mitochondria for energy."

Statistics:

1. 90% of diseases are metabolic in nature rather than genetic.
2. There are over 32,000 officially classified diseases according to modern medicine.
3. The medical industry is a \$126 billion per year industry just for cancer treatment alone.
4. 264 million people globally have clinical depression.
5. 1 in 54 children in the U.S. has autism as of 2020 (up from 1 in 5,000 in 1975).
6. Alzheimer's affects over 6 million Americans.
7. Someone dies every 40 seconds from prescription and over-the-counter drug reactions.
8. 1824 deaths were linked to Viagra in the decade after it launched.
9. 25,000+ non-fatal heart issues linked to erectile dysfunction drugs like Viagra.
10. Viagra users are 84% more likely to develop melanoma skin cancer.
11. 11 babies died in 2018 during an experiment giving pregnant women Viagra.
12. In 1930, methylene blue battery achieved almost 100% charging efficiency.
13. Recent prototypes maintained near 100% efficiency even after 12 charge cycles.
14. Methylene blue-treated 2500 cancer patients during 2020 pandemic saw 0 COVID-19 cases.
15. Rats treated with activated charcoal to sterilize guts lived 43% longer (average lifespan increased from 36 months to 55 months).
16. Up to 80% of children with autism may have mitochondrial dysfunction.
17. Depression is 2x more common in women than men.
18. Low dose methylene blue (15mg/day) had significant anti-depressant effects.
19. Methylene blue improved short-term memory test scores by 7% compared to placebo.
20. Back pain reduced over 90% in majority of patients injected with methylene blue; 72% almost completely pain-free.