

Guillermou

Methylene blue (MB), has a wide range of clinical applications. Apart from its well-known applications in surgical staining, malaria and methemoglobinemia, the antioxidant properties of MB have recently drawn attention to this century-old drug. Mitochondrial dysfunction in aging is systemic affecting many different tissues, including the brain and skin. This leads to increased oxidative stress and results in subsequent phenotypes in age-related conditions. MB can circumvent the activity of Complex I/III in mitochondria and decrease oxidative stress.

MB easily crosses the blood-brain barrier, which makes it a promising candidate for neurodegenerative pathologies. www.mdpi.com/.../htm (2021).--- www.degruyter.com/.../html (2024).-- openurl.ebsco.com/EPDB%3Agcd%3A12%3A23620172/detailv2?sid=ebsco%3Aplin.. (2024).-- Methylene blue, a versatile drug used in the treatment and diagnosis of methemoglobinemia, is promising in the prevention of possible brain damage oxidative stress of iron deposits. It can act by inhibiting the Fenton reaction and reducing the production of hydroxyl radicals.

By reducing, methylene blue can mitigate iron-induced neurotoxicity in neurodegenerative diseases. www.sciencedirect.com/science/article/abs/pii/S0306987724000422 (2024).-- In addition, methylene blue provides a protective effect on neurons and astrocytes in neurodegenerative diseases. metabolic The ability to cross the blood-brain barrier and accumulate in the brain with low toxicity and high affinity for both neuronal and cancerous tissues www.ncbi.nlm.nih.gov/.../PMC4871783 (2021)

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In these studies against Parkinson's disease, MB restored dopamine depletion. MB is a potent inducer of BDNF and its downstream signaling pathways, suggesting that BDNF could be a key contributor to the beneficial effects. These results indicate that MB protects neurons against MPTP neurotoxicity by inducing BDNF, which represents MB as a possible modulatory agent in Parkinson's disease. The restoration of mitochondrial complex activity and ATP levels, and the attenuation of oxidative stress. In addition, we demonstrated that MB induced antioxidant molecules and activated the Nrf2 pathway.

faseb.onlinelibrary.wiley.com/doi/abs/10.1096/fasebj.2018.32.1_supplem.. (2018)

www.sciencedirect.com/science/article/abs/pii/S000629522100335X (2021) Many seniors are given antibiotics, which disrupt their microbiome. Methylene blue (MB) was used for many decades at a dose of 65 mg per day and was even sold in pharmacies as Urolene Blue. (UTI). Many seniors are given antibiotics, which disrupt their microbiome. The kidneys excrete MB into the bladder, where it reaches very high concentrations over time and becomes a potent oxidative stress that kills virtually any pathogen in the bladder. Plus, it has the added "side effect" of improving brain health and reducing dementia.

It is reprehensible medical negligence not to use methylene blue in urinary infections in the elderly. It is clearly the safest and most effective drug of choice. takecontrol.substack.com/.../methylene-blue-health-benefits (2024).-- The use of MB is associated with a reduction in the chance of contracting C-19 infection and mortality, and can be used as a safe, effective, inexpensive and readily available treatment option with minimal side effects for the clinical management of COVID-19.

www.ncbi.nlm.nih.gov/.../PMC11127079 (2024).--

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rhendatorrence

Can you PLEASE help me with dosing? His recommendation doesn't make sense to me. "Generally, dosing is between 0.5 mg and 1 mg per kilogram of body weight, with an upper limit of 4 mg for acute treatment of things like cyanide poisoning, for which methylene blue is the only antidote." I'm 110 lbs = 49 kg .5 mg x 49 kg= 24.5 mg But he says upper limit is 4 mg I DON'T KNOW WHAT TO DO. THANK YOU!

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articles.mercola.com/sites/articles/archive/2022/05/01/methylene-blue-.. "Dosing Suggestions As mentioned, methylene blue is a hormetic, so low dosages have the opposite effect of high dosages. While every possible dose response has not been tested, as a general guideline, the benefits Gonzalez-Lima discusses in this interview are based on dosages between 0.5 milligram per kilogram of bodyweight to 4 mg per kg. He admits lower doses may work but he hasn't tested them. For an acute treatment, the upper limit is between 3 mg to 4 mg per kg, which is typically the range given as an IV antidote for methemoglobinemia.

For nonacute, more long-term treatment, 0.5 mg to 1 mg per kg per day works better. It has a half-life of 12 to 13 hours, so once-a-day dosing is fine. He gives the following example of how methylene blue has been used in the treatment of fears and phobias: "One of the processes in which a memory formation can be used therapeutically is when you form a memory to extinguish fear. Individuals who have a phobia, you can expose them to the specific situation that is involved in the phobia, and there is a learning called extinction learning that happens that you extinguish your response.

In that situation, we only give methylene blue once after this extinction learning to facilitate the process of memory consolidation. What happens after you go through the learning is the process of consolidation, which requires energy. So, by facilitating the energy availability during the consolidation phase, which happens over a number of hours, then the next time [you're exposed to fear-evoking stimuli, you've] consolidated that extinction memory more effectively."

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"We've done this also with post-traumatic stress disorder (PTSD), where you use prolonged exposure therapy. In that situation, you can give the methylene blue after different sessions where you see that there is a good extinction learning. In other words, where people are learning through exposure to reduce their fear levels, that's when you want to reinforce that therapeutic learning by giving them the methylene blue right after the session." For brain health, nootropic effects and the prevention or treatment of dementia, 0.5 mg to 1 mg per kg per day (or when needed) is the dose Gonzalez-Lima recommends and uses."

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Hol9556

I've played with MB both topically and orally. The topical formulation was 1 drop of 1% MB to 3/4 oz of aloe Vera gel. I was applying it for anti aging skin care. I spend my winters in the Bahamas and occasionally get precancerous growths. I applied the formula to a couple of spots daily and was amazed to see them disappear over a two month period. Anecdotal evidence only but I photographed the experiment and was amazed at the results. From "you need to get that checked out" to "where did it go?"

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heppejk

I'm going to try this on a precancerous spot I've been treating with castor oil and oregano oil unsuccessfully. Thanks for the idea.

Posted On 07/31/2024

mkhart

Can you share your source for MB? It's not easy to find, and then you have to worry about whether it's the real thing when you find it. Thx

Posted On 07/31/2024

Mrobbins

I've used very low-dose methylene blue with Red light therapy for many years. It gives you an incredible boost of energy and mind clarity.

Posted On 07/31/2024

debchosen

It would be really nice if someone would give a link to pharmaceutical grade MB, many have asked, but no response.

Posted On 07/31/2024

Dr. Mercola

Our pet store will carry it soon. Be VERY careful about MB, once you dissolve it in water it is only good for 72 hours. MB dissolved in water sold commercially should not be used.

Posted On 08/01/2024

KyerVegan

Oh thank goodness, the Doctor has replied to this. I was wanting to ask the same thing when this first came out after I couldn't find it on the Market site. Don't trust most sellers these days. Doctor, please advertise when it becomes available in the Pet section.

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healthnatura.com/methylene-blue-400mcg-ready-to-use-solution-1oz/

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Health Natura.com \$23.99

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Besides methemoglobinuria, high-dose methylene blue is also used for severe cases of malaria and for cyanide poisoning. It can also resuscitate a person who has just died of a massive heart attack, by direct injection into the heart muscle. But those mega-doses are extreme, to save someone's life who would otherwise die. I've studied this extensively. Methylene blue (MB) exhibits a bi-phasic dose response; at too high a dose it becomes pro-oxidant. I personally take 25 mg/day. As an antioxidant, it is perhaps the only antioxidant that renews itself. There are many benefits to MB not noted here.

MB inhibits intracellular formation and aggregation of amyloidogenic proteins and plaques including amyloid beta, tau and TDP43, thus is beneficial for Alzheimer's, Parkinson's and ALS. Even nanomolar concentrations of MB can reduce tau levels, and it also induces autophagy, acting similarly to rapamycin. It's important to tell your readers that people who should **NOT** take MB are people either with G6PD deficiency or people taking MAO inhibitors or serotonin-increasing drugs (e.g., SSRIs), because MB is an MAO inhibitor.

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