

CROSSROADS

THE OFFICIAL NEWSLETTER OF THE PREMED SCENE



Dear medical newsletter readers,

This month's edition presents the most recent news regarding medical research. I will begin by talking about the impact of anabolic steroid use on cardiac health. Siri Nikku is this month's Rising Stars in Medicine writer, talking more about Dr. Adamson's contribution to dermatology. Additionally, she describes the types of sleep apnea. Then, Mahima Bhat discusses the benefits of chia seeds. Finally, Ashby Glover shares more about the crisis facing rural hospitals.

Please enjoy reading The Premed Scene's February 2024 Medical Newsletter!

Ilana Saidov

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Heart Awareness Month

By: Ilana Saidov



In recent years, the use of anabolic steroids has become a topic of growing concern due to their potential adverse effects on overall health. A new study has shed light on yet another concerning aspect of steroid use: an increased risk of heart disease. The study conducted by Dr. Laura Sommerfeld at the University of Birmingham discovered that the use of anabolic steroids, primarily by young men, can increase the risk of developing a heart condition known as atrial fibrillation. Atrial fibrillation, or AFib, is defined as an irregular heart rhythm. This type of arrhythmia can cause blood clots in the heart. Additionally, it can increase the risk of stroke and heart failure as well as cause additional heart complications. Although atrial fibrillation is not a life-threatening condition, it needs to be managed appropriately to prevent the development of more serious medical conditions in the future. The team discovered that the misuse of androgenic anabolic steroids (AAS) to increase muscle mass can increase the risk of atrial fibrillation in young men who are predisposed to heart diseases. Through this study, Dr. Sommerfeld and the research team hope to bring awareness to the potential risks associated with anabolic steroid use to work towards creating a safer and healthier approach to fitness and performance enhancement.

References

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Rising Stars In Medicine: Dr. Adewole "Ade" Adamson

By: Siri Nikku

Dr. Adamson is a board-certified dermatologist and researcher of health services. He is also an Assistant Professor of Internal Medicine (under the Division of Dermatology) at Dell Medical University at the University of Texas (UT) in Austin. Dr. Adamson mainly studies skin cancer, evidence-based medicine, and health policy. His clinical focus includes caring for patients with a high risk of skin melanoma, unusual moles, and patients with a family history of melanoma. In addition, Dr. Adamson is the director of Pigmented Lesion Clinic.

Dr. Adamson's path to becoming a renowned dermatologist started with graduating with a magna cum laude from Morehouse College with BS in Biology and French. Later, he earned an MD with honors at Harvard Medical School as part of the Health Sciences and Technology Program at the Massachusetts Institute of Technology. During med school, he spent a year conducting basic immunology research at the National Institutes of Health (NIH). Dr. Adamson also pursued and earned a Master's degree in Public Policy at Harvard Kennedy School as a Zuckerman Fellow in the Center for Public Leadership. Dr. Adamson finished his internship in internal medicine at The Mount Sinai Hospital, followed by his dermatology residency at the University of Texas Southwestern in Dallas, TX. He earned multiple awards for his professionalism, leadership, and community service work here.



Dr. Adamson's endeavors include comprehending trends in healthcare utilization, especially how it is overused or underused in dermatology. He also wishes to observe whether the healthcare system effectively and efficiently provides care to patients with skin cancer. Interests in health care disparities, accessibility to specialty health care, and costs of health care fuel Dr. Adamson's work. Dr. Adamson is also a part of a project about applying Artificial Intelligence (AI) in health care. He also discusses international and national healthcare quality, value, and the application of evidence-based medicine within dermatology and medicine in general.

Dr. Adamson can participate in pick-up hockey or ice hockey in his free time. He is also fond of tweeting about evidence-based medicine, race in medicine, and rising healthcare costs.

References

<https://adeadamson.com/>

<https://adeadamson.com/about-adewole>

Sleep Disorders: A View into Sleep Apnea

By: Siri Nikku

We all might get annoyed with the person who snores too loudly at a sleepover or a relative, but there could sometimes be a much more serious issue behind this. Snoring loudly and feeling fatigued after a whole night's rest are potential signs of sleep apnea. Other symptoms include gasping for air during sleep, a morning headache, insomnia, hypersomnia, irritability, low attentiveness, waking up with a dry mouth, and other people reporting that the person sleeping does not breathe at times during sleep. This sleeping disorder occurs when breathing repeatedly stops and continues again in intervals. This is dangerous due to several complications such as daytime fatigue interfering with regular functioning, high blood pressure or heart issues, difficulties during anesthesia for surgeries, Type 2 diabetes, liver issues, and sleep-deprived partners. Some risk factors for sleep apnea include being obese, having a thicker neck, being older, smoking, struggling to breathe through the nose, drinking, and being born male.

There are three types of sleep apnea. Obstructive sleep apnea (OSA) is when throat muscles relax and prevent air from entering the lungs. Central sleep apnea (CSA), where the brain doesn't send the correct signals to the brain to control breathing during sleep, and treatment-emergent central sleep apnea, where someone's OSA turns into CSA while having treatment for OSA. OSA is the most common type of sleep apnea, while treatment-emergent central sleep apnea is a complex form of sleep apnea and much rarer. The best way to determine if one has sleep apnea is to see your primary physician for further testing or even a sleep study.

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Benefits of Consuming Chia Seeds

By: Mahima Bhat

Praised for its exceptional health benefits and versatility in the kitchen, chia seeds have become a popular addition to various diets. These seeds, derived from the *Salvia hispanica* plant, have gained popularity for their exceptional nutritional profile and versatility in culinary applications. Packed with omega-3 fatty acids, fiber, and various essential nutrients, chia seeds are claimed to be a superfood. However, as with any health trend, it is important to explore potential drawbacks to help you make informed choices for your health and well-being regarding chia seeds.

In addition to their omega-3 and nutritious benefits, their high fiber content contributes to digestive well-being, preventing constipation and promoting a healthy gut microbiome. Chia seeds are also abundant in antioxidants, crucial in protecting cells from damage caused by free radicals.

The gel-forming property of chia seeds, attributed to their high soluble fiber content, further supports digestive regularity and helps stabilize blood sugar levels. Chia seeds contain approximately 75% alpha-linolenic acids (ALA), omega-3 fatty acids, and about 20% omega-6 fatty acids. A lower ratio of omega-3 fatty acids is associated with a decreased likelihood of developing chronic conditions such as heart problems and premature mortality, as indicated by previous studies.

However, the significant fiber content in chia seeds may pose challenges for individuals with sensitive digestive systems. Some may experience bloating, gas, or abdominal discomfort, particularly when consuming chia seeds in large quantities or without sufficient water. This is due to the seeds' ability to absorb water and form a gel-like substance, potentially causing digestive distress for those not accustomed to a high-fiber diet.

Additionally, for those with diabetes who regulate their insulin dosage to maintain balance, introducing chia seeds into their diet may necessitate a reassessment.

Consumption of chia seeds can lead to a gradual decrease in blood sugar levels. This presents a potential concern, as it could result in the need for adjustments in insulin dosage to prevent hypoglycemia.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9834868/#:~:text=One%20of%20the%20distinctive%20features,by%20just%20consuming%20chia%20seeds.>

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Rural Medicine in Crisis

By: Ashby Glover

More than 600 rural hospitals in the United States are at imminent risk of closing due to serious financial problems. Making up 30% of all hospitals in the country, these at-risk hospitals are part of an increasing trend of closures, with over 150 rural hospitals closing between 2005 and 2019. (1) This decrease in medical services is concurrent with the first growth of the rural U.S. population in a decade, spurred by the increase of remote work and baby boomer retirement reaching its peak. (2)

In desperate bids to stay open to provide basic access to care, rural hospitals are increasingly closing specific services down, most notably obstetrics (OB) and chemotherapy. (3) Although demand for obstetrics care has risen as more states ban abortion, hospitals have been cutting maternity services due to financial hardship. A national average of 55% of rural hospitals do not provide labor and delivery services, but more than two-thirds do not in some states. (4) According to a recent report, 217 rural communities no longer have access to OB, and 353 have lost access to chemotherapy. (5)

In addition to lacking or nonexistent rural hospital services, there is a shortage of doctors in rural communities in general. In 2023, 65% of rural areas had a shortage of primary care physicians. (6) In addition, despite 20% of the U.S. population living in rural areas, only 10% of physicians practice there. (7)

While healthcare policy and incentive programs will likely have to address the majority of the problems facing rural hospitals and doctor shortages, some medical schools are also looking for solutions. For example, the Edward Via College of Osteopathic Medicine (VCOM) mission is to recruit physicians with a strong desire to work in rural or medically underserved areas and prepare them to meet the needs of those communities. (8) Increasing awareness and a push for physician training geared toward rural healthcare are essential to solving this crisis.

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- 7.Edward Via College of Osteopathic Medicine (VCOM). "[Mission and Goals.](#)"