

jamNjim

I was doing the 5 to 10 mile runs back in the 90's with diminishing returns. I was in the National Guard and we did what was called an APFT (Army Physical Fitness Test) You got 100 points to max out pushups (100 in 2 minutes), max out situps (100 in 2 minutes), and max out the 2 mile run (2 miles in under 12 minutes). I would usually do 100, 92, 92 (respectfully). No matter how much I ran, I never seemed to make any gains. If I really pushed it by running 8+ miles a day, my pushups and situps would take a hit! My strength would go down as my endurance increased slightly. So I would get a 95, 88, 100.

UNACCEPTABLE! In the back of my head, I considered trying LESS exercise, but better quality exercises. Rather than mimicking my APFT test every day, I decided to do exercises I LIKE (less stressful). I did Squats, Bench Presses, Leg Presses, Butterflies, etc for strength, and all I enjoy doing. Because I HATE everything about running, I decided to focus purely on cardio. I did Wind Sprints instead of jogging! It is much less stressful especially if you have ADHD or something that makes it difficult to focus. When you sprint, you are only running for a few seconds and you are hyper focused! When you stop sprinting you put your mind at ease and relax.

It is very therapeutic (for me)! I had no idea how much better my overall conditioning was after just 2 months of switching from my routine exercise program to something more engaging. I just knew I felt better. I was less than 2 months away from my annual APFT exam and I was up for promotion against 3 others who were all capable of scoring 300 out of 300. I SMOKED them all! They all asked how I did it. I told them I stopped running/jogging, stopped doing pushups, and stopped doing situps and replaced those exercises with exercises I enjoy.

Posted On 03/22/2024

stoneharbor

A fantastic story, jam! HIIT wins again! And your body was spared.

Posted On 03/22/2024

Guillermou

We can also consider that progressive training and external factors influence the stress response. For the same absolute intensity of exercise, the cortisol response may be lower after a physical training program. During submaximal exercise (short duration, high intensity work performed with a load that exceeds that associated with maximum oxygen consumption), responses are influenced by several external factors. If submaximal exercise is below the critical threshold intensity, then cortisol levels may not increase above resting levels or, in fact, may be reduced. If this exercise lasts long enough, levels can gradually increase over time above resting values.

A low-carbohydrate diet for several days can increase the subsequent cortisol response to submaximal exercise. Extremely hot or cold temperatures can increase the cortisol response to an exercise session. The more exercise a person trains, generally the more blunted the cortisol response is to almost any level of submaximal exercise condition. It is evident that adaptation to exercise intensely suppresses the subsequent cortisol response to a psychosocial stress factor. Prolonged or severe stress has also been found to inhibit the hypothalamic-pituitary-gonadal (HPG) axis and its release of testosterone, which is dampened by training.

When the HPA axis is activated with chronic stress, negative effects occur such as: -----1) Increases visceral fat deposits -----2) Decreases bone and connective tissue metabolism in general -----3) Increases insulin resistance -----4) Produces irritability and mood disturbances -----5) Alters the perception of reality -----6) Lower tolerance to stress (greater perception of it) -----7) Alters decision making and judgment .-----www.ncbi.nlm.nih.gov/.../PMC5988244 (2013).----
www.sciencedirect.com/.../S0306453021002109 (2021).-----
www.tandfonline.com/.../10253890.2023.2199886 (2023).-----

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Guillermou

This review examined the adaptive endocrine responses of the HPA axis, catecholamines, cytokines, growth hormone (GH) and prolactin (PRL) to a single session or regular exercise of three different types of exercise, namely resistance, high-intensity intervals (HIIE) and resistance exercise. The body's homeostasis can be threatened by external or internal stressors. When a threshold of the complex dynamic equilibrium described is reached, an adaptive compensatory response is initiated, as part of an innate process developed through evolution to protect the organism by rebalancing homeostasis (called allostasis).

If the adaptive response exceeds a certain level it can become harmful to the organism. A single bout of resistance exercise induces an increase in cortisol, while regular activation of the HPA axis induced by resistance exercise produces a relatively high increase in basal cortisolemia; A single session or regular exercise induces similar peak GH responses. Regular HIIE training reduces basal cortisol concentrations, while the catecholamine response is reduced in regular HIIE compared to a single HIIE session.

The response of the HPA axis to resistance exercise depends on the intensity and volume of the exercise. A single bout of resistance exercise is characterized by mild stimulation of the HPA axis, whereas regular resistance training in older people produces an attenuated inflammatory response and decreased resting cytokine concentrations. link.springer.com/.../s11154-022-09758-1 (2023).--

Posted On 03/22/2024

juststeve

Hey Gui, knowing a long-distance marathon runner when hitting his 50s' complained his knees, hip joints were going all to hell. Very disappointed as he had believed what he had been doing was to improve his health. He switched to bicycling as it afforded benefits while being kinder to the joints. Still, it seems it may have all been too late as he passed from a heart attack in his early sixties. Studies of legs and the muscles of long-distance runners reveal a war zone of damaged tissues. Weight resistance, and not the Popcorn Muscles fueled by Steroids type, appear very much like healthy young people. On a personal note, walking has always been preferred. The stress it affords is mostly warm and fuzzy feel good, with an occasional extra push, stress in the more difficult terrain. One can start or stop if needed, no need to learn to ignore undue stress or pain signals.

Posted On 03/22/2024

stoneharbor

Glad you point out that High Intensity Interval Training (HIIT - and the more common acronym for this) is very useful to gain muscle, give better cardiovascular health, and importantly NOT raise cortisol levels. I agree that it's necessary to explain how HIIT can do all this and your links help with this. I would now like to see Dr. Mercola give an update on High Intensity Interval Exercise himself and explain whether he still recommends it as he did years ago. Many of us have been using HIIT as one of our primary workout methods since he and others first proposed it. I may have missed Dr. Mercola talking about HIIT more recently, and if so, I would like a link to his most recent article. I still think that High Intensity is an efficient way to get exercise without having so many damaging features as normal cardio exercise.

Posted On 03/22/2024

Guillermou

Thank you Just and stoneharbor for your interesting contributions that lead us to exercise by adopting good personal practices. Regular moderate exercise training has been shown to protect against morbidity and mortality associated with cardiovascular disease, type II diabetes mellitus, and cancer risk. Additionally, regular physical training has been shown to contribute to better health and less disability in older people by positively affecting immune function. Regular moderate exercise training has been reported to have anti-inflammatory effects due to the reduction of visceral fat mass and the induction of circulating anti-inflammatory cytokines.

These changes are clinically reflected in a lower incidence of infections. In fact, moderate physical training has been reported to be associated with a significant reduction in the risk of respiratory infections compared to a sedentary lifestyle. On the other hand, prolonged periods of strenuous physical training lead to a subclinical systemic inflammatory syndrome (SIRS) characterized by elevated levels of pro- and anti-inflammatory cytokines. It has been suggested that strenuous exercise may cause suppression of immune function, making the host more susceptible to infection for 3 to 72 hours after exercise ("open window" theory).

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Guillermou

Furthermore, intense physical training increases oxidative stress and promote the production of reactive oxygen species (ROS), which is an important etiological factor in diseases such as diabetes, cancer and Parkinson's disease. Conditions associated with significant changes in stress system activity, such as acute or chronic stress and vigorous exercise, may increase autoimmune disease activity by modulating the systemic or local balance between pro-inflammatory and anti-inflammatory cytokines. The above findings suggest that the type and form of exercise have different effects on the immune response. During a marathon race, they can suffer from dehydration, hypothermia or hyperthermia, musculoskeletal, gastrointestinal and kidney problems, and hyponatremia.

Pulmonary complications may also occur, possibly associated with hyponatremia. Heart problems (sometimes serious) may occur, especially in athletes with congenital or acquired heart disease. The results of this study showed a polarization of proinflammatory cytokines (type 1) in marathon runners, which increased markedly after the race and was counteracted by a transient increase in the number and activity of Tregs and IL-10 secretion.

www.frontiersin.org/journals/immunology/articles/10.3389/fimmu.2022.10.. (2023).--

Posted On 03/22/2024

It's good to hear Georgi Dinkov say within the first 2 minutes of this video that glucose is no problem once you quit having excess in circulation and when you do this by burning off excess bodily fat, excess circulating glucose and excess circulating insulin, and of course high insulin resistance will go away. As before, I will point out that the quick way to start reducing insulin resistance while also reducing your weight by lowering your fats in storage is to use the process of intermittent fasting (IF). It brings into play the Randle Cycle, which Georgi Dinkov praises in the opening statement. The Randle Cycle is just a term for describing how the body converts metabolism to burning fatty acids and ketones in the mitochondria instead of glucose.

If this is done daily by using intermittent fasting for 12 or more hours each night, weight will be lost from fat storage because mitochondria will be demanding fuel once insulin levels drops, which it always will once the circulating glucose has been stored in the liver and muscle cells as glycogen. So automatically, if you haven't just gorged yourself on carbohydrates the day before, creating such circulating excess that you can't even use up, you will begin burning fats and ketones, thanks to insulin disappearing and glucagon then releasing the fats from storage.

It's very important to point out that (for the moment lets leave out the discussion of what kinds of exercise you get), intermittent fasting does not cause an elevation of cortisol during the fast even though it lets you stop burning glucose. While exercise like running may do this, intermittent fasting does not. Here's a study relating cortisol to daily intermittent fasting: www.ncbi.nlm.nih.gov/.../PMC8399962 Notice it says "Dinner-skipping resulted in significantly reduced evening cortisol and non-significantly raised morning cortisol. Conversely, breakfast skipping resulted in significantly reduced morning cortisol. " So IF is good.

Posted On 03/22/2024

stoneharbor

In addition to IF having mostly a positive effect on cortisol, it also allows a time of rest and recovery for both the digestive system and also for all the cells in the body who burn both glucose and fats in their mitochondria. In mitochondria, this rest period while burning fats and ketones is used to actually generate more mitochondria during this period of "uncoupling" from the ATP generating "energy" cycle best served by glucose. When the mitochondria are burning fats and ketones they are regenerating their energy production capacity. pubmed.ncbi.nlm.nih.gov/11053672
www.nutrisense.io/.../intermittent-fasting-glucose-levels

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Guillermou

Interesting aspects, stoneharbor. We also know that prolonged fasting increases cortisol. The circadian rhythm of cortisol and DHEA secretion is regulated by the central pacemaker, the so-called biological clock located in the suprachiasmatic nucleus (SCN) of the hypothalamus, and depends on the timing of sleep and wakefulness. Circadian variation in DHEA is documented, with peaks occurring in the early morning hours. DHEA is secreted synchronously with cortisol in response to corticotropin-releasing hormone (CRH) and adrenocorticotrophic hormone (ACTH).

Cortisol and DHEA are steroid hormones with opposite effects. In obese patients, there is a higher concentration of cortisol, which in turn can cause a decrease in DHEA concentrations. Furthermore, the cortisol concentration in men was inversely related to BMI and a negative relationship between the BMI value and DHEA concentration in lean and obese women. Furthermore, in obese patients, DHEA level showed a positive correlation with insulin concentration. Overstimulation of the hypothalamic-pituitary-adrenal (HPA) axis may play a role in the pathogenesis of diseases that coexist with obesity, for example, it is correlated with excessive food intake and causes emotional eating.

Additionally, excessive levels of glucocorticoids reduce the activity of the satiety hormone, leptin. The amount of visceral fat correlates with increased HPA axis reactivity, especially in the morning and in response to acute stress. DHEA has anti-obesity properties, anti-diabetic properties. In addition, DHEA counteracts the effect of cortisol on the immune system and improves cognitive functions.

Posted On 03/22/2024

Guillermou

In this study the results obtained during 64 consecutive hours of saliva sampling suggest that fasting for one day can affect three components of cortisol and the daily rhythm of DHEA. Furthermore, no differences were found in the daily rhythm between the morning and evening chronotypes or between women and men. The cortisol/DHEA ratio was also assessed at multiple moments of saliva sampling. The ratio was similar every day, with only a different concentration early in the morning of the fasting day. The proportion was higher due to its lower concentration of DHEA and higher level of cortisol. Although aging did not influence the daily rhythm of cortisol, the amplitude of DHEA changed with age. www.ncbi.nlm.nih.gov/.../PMC9940638 (2023).--

Posted On 03/22/2024

stoneharbor

All so very true, Gui. Thank you for these very important additional considerations. It is worth noting that extended fasting can actually be damaging, but According to the study, I provided, it seems that the the circadian rhythms are not compromised with just a 12-16 hr fast, even regularly. It is very much what prehistoric humans evolved with.

Posted On 03/22/2024

Esseem

Will progesterone feminize men?

Posted On 03/22/2024

Dr. Mercola in the article recommends taking oral progesterone rather than transdermal. However, the progesterone he recommends in the article, Simply Progesterone by Health Natura, IS transdermal. They also have an article on their webpage, explaining why transdermal progesterone is better than oral progesterone. If oral progesterone is helpful to the thyroid, as Dr. Mercola says in the article, can anyone recommend a good oral progesterone?

Posted On 03/22/2024

GoldCoaster

It is confusing. Transdermal proponents say transdermally, around 80% is absorbed, whereas orally only 10-15% is absorbed, but the sellers of the creams don't tell you that oral mixed with the right fats will give you high absorption, or they don't know. Taking it orally mixed in with butter or in vitamin E, enormously aids absorption to around 90%. My 150 mg oral progesterone is compounded. (on Amazon it doesn't say theirs is for oral use ???) I open the capsule and mix it with 1/2 tsp of butter, as Dinkov recommends.

I have read on many sites, the opposite to what Dinkov says, that transdermally it DOESN'T convert to allopregnenalone, only oral does, and therefore for sedation and the GABA effects of allprenenalone, oral facilitates sedation, and transdermally won't help sleep. Once aging... it's confusing!

Compounding pharmacies advertise 100-300 caps for sleep. (They don't mention mixing it with fat.) I used to take 300 for sleep, but now 150 in fat. It definitely gets me back to sleep in the middle of the night, as it lowers cortisol and is a powerful GABA modulator.

GABA supplementing up 1500 didn't work for me. Dutch testing (saliva and urine) showed my cortisol is elevated during the day and spikes during the night. My doc said it's caused by stress resulting in HPA axis dysregulation. I'm unaware of what is causing the stress. Good news though, Mercola said on a podcast that he's developing progesterone powder in vitamin E!

Posted On 03/22/2024

GraemePalmer

Thanks for what you do... Are you guys aware of the following research regarding dna telomere sheath health and aging: Reading on ageing: "We Are All Stardust" - Author: Stefan Klein - has an interview with Elizabeth Blackburn "The Telomere Effect" - Author: Dr Elizabeth Blackburn + Dr Ellissa Epel en.wikipedia.org/.../Elizabeth_Blackburn Cheers, Graeme - Queensland, Australia - 70yo and surviving prostate cancer

Posted On 03/22/2024

barnatt123

Very interesting - thanks for sharing. You're a star! Best wishes on your healing journey.

Posted On 03/28/2024

jul6010

Wondering if Dr. Mercola is recommending using the Simply progesterone product by Natura on your gums? On their website it says not to apply it on the lips or mouth, just on the skin. But I thought Dr. Mercola said it does not absorb well through the skin, so how is he recommending to use the simply progesterone product? Also one dose of 2-3 drops is 6-9 mg, whereas he recommended 30-50 mg so you would need a lot more. Clarification on how to use this product would be great.

Posted On 03/24/2024

avo7100

After enjoying decades of running it has taken its toll on my knees. I used to ride and race bicycles and got burned out on it. I discovered the rowing ergometer which I found to have the best results in the shortest time of any cardio program. A five minute warmup at 35-38 pulls per minute, followed up with eight thirty second intervals at 50+ pulls per minute with a thirty second interval at the lower rate works well to get one's body in great shape with zero impact. This workout method is done in a short period of time and increases lung capacity dramatically as well as a shorter recovery from other physical activity.

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PKB585

An alternative to long term high intensity exercise is polarization training, which dictates that you do 80 to 85 percent of your longer workouts at an endurance pace (65% of threshold), and the remaining training as HIIT. This builds your mitochondria to give you that great base, and also gives you that top end.

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m231231

25 a day 100 yard sprints, done 650. 9,350 to go by Nov 1st. Ready to go to 2x25 a day very soon. Age 69, if I can anyone can. And will add jump roping too 1,000 a day. And i do resistance training every other day. Exercise sucks but never fails. High school quickness long gone. Figure lost 1% speed a year or so. Maybe not that much. I don't get it. I use to be fast. Have recently added stationary bar in garage, most so far was 65 seconds. Really sucks. lol exercising for 10.20, 30 years from now. As a kid, I'd laugh at Jack Lalane on tv. I'm not laughing any more! Watched a video, he was amazing. Include often juicing, Cabbage yum. Recommend juicy oasis in Portugal on YouTube and Fat Sick and Nearly Dead by Joe the juicer Cross. Amazing. Livin til 100. At least for today. I follow local Dr. Omara and will meet him soon. He has vids. I call him the sprint doctor. Mpls area. After each sprint my heartbeat peaks at 146 then subsides. I can't sit around in retirement. lol

Posted On 03/22/2024

brodiebrock12

Most all OCD long distance runners I know look far older than their chronological age. Similar to vegetarians. Then again their would be something to be said if you looked far older, yet your quality of life was still good at age 75 + so that would be a good study for someone to do. We all know people in there 40's and 50's even who are not high intensity exercisers, but have a poor quality of life too. Just sayin

Posted On 03/22/2024

jul6010

I am currently taking a bio-identical progesterone troche by allowing it to absorb on my gums. Should I be not really putting some vitamin E on my gums as well along with the troche? Would that be better than alone?

Posted On 03/24/2024

iro5345

I learned so much for both of you. Thank you for airing this last video! What about Apples. Peaches and Nectarines, Apricots. We have a nice apple orchard with several varieties. We also have grapes. Are these ok to eat?

Posted On 03/23/2024

Dr. Mercola

They are fine

Posted On 03/24/2024

Faynasier

Can I just take Microgest PROGESTERONE 100mg? This pharmaceutical is used by many women worldwide already, so 'absorbtion' presumably hasnt been an issue so far? (Im male, 42)

Posted On 03/23/2024

20273761

Would like to see some discussion of the carnivore diet that is being promoted by the new breed of body-building, nutritionally enlightened MD's on YouTube. Claims of significant beneficial impact on autoimmune diseases as well as visceral fat and obesity appear to be genuine and in my case have helped significantly with early morning stiffness and knee pain. Should this not be a major consideration given Dr. Mercola's current KETO diet and fats rethink? This is the diet that we evolved with as a species, right? All these complicated glucose-fat-glycogen-energy cycle-cortisol-exercise relationships might boil down to the easiest road to health management is a modified carnivore diet plus techniques for stress management. I realize that meat consumption is a serious concern with the climate folks, but there is good evidence that regenerative agricultural-raised animals contribute to net increases in CO2 sequestration.

Posted On 03/22/2024

GoldCoaster

Good points. During 2 years carnivore, Saladino felt great including asthma, digestive issues, and eczema gone, but then had low electrolyte side effects and low thyroid. Adding fruit, raw dairy (after interviewing Sally Norton re importance of calcium) and honey is necessary for him, and he's now on board with Ray Peat. Then there's plant free MD Dr Chaffee that didn't have those issues at all and doesn't eat carbs. (carbs are in rare cooked meat, which he eats). His interview with Saladino was interesting.

Same with Dr Shawn Baker, but on his podcast he does advertise electrolyte sups, without saying why exactly. He's an athlete in his 60s and says he's absolutely zero carbs. Ancestral humans ate seasonal fruit. But humans have also thrived in extremely cold climates where edible plants don't grow. The climate debate and its antimeat argument is absolute rubbish, and just another way to push vegetarianism and veganismwe are biologically carnivore, needing all of meat's amino acids and other nutrients that can't be obtained from plants.

..... Remember the earth was originally populated with megafauna? Did we have climate problems then because of them? ...no. Yes we NEED regenerative farming for animal welfare and soil health, instead of the insanity of using petrochemical fertilizers and herbicides. So much corruption and self-interest agenders in this world. I personally did carnivore for 3 weeks and lost 5 kgs (looked too thin), so include carbs.

Posted On 03/22/2024

Faynasier

As someone from the EU here with M.E/CFS, im wondering whether trying Progesterone might reduce my suseptiability to crashes - which seem to occur in tandem with increased cortisol/adrenaline. The only supplement I can source would be from an Indian pharmacy i have used, and they're selling 100mg of Progesterone, though I suspect this is either for a) HRT therapy for the perimenopausal or b) MTF gender transition. I would rather like to stay a man, but perhaps get the benefits of Progesterone..should i get the 100mg and nibble a bit off before bed? (the oil Mercola recommends isnt available in the UK)

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