



Prestige Regenerative Medicine General Recommendations

It was a pleasure meeting with you, and I am honored by your trust in me to help you achieve your goals.

Based on extensive reading, study, research, and cutting edge information on Age Management Medicine and Optimal Health, I have put together a series of recommendations that hit on all 4 pillars of Optimal Aging: Chronobiology (Circadian biology), Nutrition / Supplementation, Exercise, and Hormone Replacement.

We discussed some of these topics during our consultation, and I would be happy to delve more deeply into the specific importance of any of them and the scientific and medical research behind them if you wish when we meet again – please feel free to schedule additional consultations to further discuss.

I have formatted this list as recommendations without much of the research / detail behind them – that would be a book! Each has been well researched and references are available. Please feel free to schedule time to discuss any of these recommendations and dive deeper into the science behind them. Some may be surprising or contradict “conventional wisdom” -- don’t be alarmed or surprised by that. Conventional wisdom is getting us a country with rapidly worsening health problems!

The effect of these recommendations on your health will be gradual but real – very few things will help you improve your health in only a day or a few days (it took you years to get where you are.) The sum total and synergistic effect of as many of these practices as you can adopt over weeks, months and years will make a tremendous difference in your ultimate health, well-being, and how you age. I know this is overwhelming, so pick a few of them and try to stick with them in 30 day increments, gradually adding more optimal practices. Over time you’ll be surprised at how much improvement in your health you have seen. In a year you will see a huge difference!

You are welcome to use the messaging feature of OnPatient to send me questions and messages. That method is preferred over email, because it helps protect your private health information and is required under the HIPAA laws. I will get back to you as quickly as I can, but you are always welcome to call the office (530) 395-0505 and to speak with me and staff will take a message as needed.

Chronobiology (Circadian Rhythms)

One of the most important components of regaining or maintaining your health is paying careful attention to your circadian rhythms. Morning sunlight helps turn off cortisol production, and starts insulin and sex steroid (testosterone, estradiol, etc.) hormone production. Sunlight on your skin during the day helps synthesize Vitamin D, a critically important hormone, and sunlight through your eyes helps recycle ocular melatonin so that you can create pineal melatonin (which leads to refreshing sleep, human growth hormone secretion, is anticancer, etc.) after dark. Many of the conveniences and cultural norms of modern life have given us the ability to ignore normal circadian rhythms – at our peril! There is a huge and rapid expanding volume of research that shows that ignoring them rapidly degrades our health.

- Every morning get sunlight through your uncovered eyes for a least 20 minutes. No glasses / contact / sunglasses. Don't stare directly at the sun -- 20 degrees to one side is fine.

- Don't skip breakfast. Eat most of your carbohydrates (I recommend less than 100grams / day except in full summer) early in the day.
- Spend as much time outside as possible during the day and get as much sun as you on bare skin and through your eyes (again, no lenses.) The more time you spend outside in the sun the less you will need to eat.
- Work on building a sun callous so you can do it without sunscreen. The more DHA (seafood) you eat the easier this is. If you haven't had sun on bare skin in years you will need to work up to it to allow your body to synthesize melanin again. It takes time. Don't burn.
- Download and use the Dminder app for your phone to tell you when the best time to get Vitamin D from natural sun is. Vitamin D from the sun is vastly superior to supplementing.
- Spend time outside, in contact with natural surfaces (grass, dirt, sand, seashore, concrete not asphalt) barefoot. This is called "earthing" or "grounding and has proven health benefits. For more information see <http://www.earthinginstitute.net>
- During the winter consider going to a tanning salon several times a week or buying a sun lamp (<http://www.sperti.com>). Vacation in sunny places and get out in the sun as much as you can.
- After the sun goes down, turn down ambient lighting and avoid light in the blue part of the spectrum. LED lights, fluorescent lights (including compact fluorescent lights (CFLs)). The most pervasive sources of blue light in our environment are smartphones, tablet computers (iPads, etc.), computers, and TVs. They are huge problems after dark. Avoid them or take steps to mitigate their light on your eyes (see below)
- After dark, use amber or red lighting in your home and for bedtime reading. Initially will seem strange, but you will get used to it quickly and come to enjoy it. Many good options available at <https://www.lowbluelights.com>
- Download and use Flux (<https://justgetflux.com>), a program that changes the color temperature of your computer screen. It is free for both PC and Mac.
- If you have an Android phone, use the Twilight or F.lux app. Use the "Nightshift" feature of the newer Apple iOS products, or buy a screen filter (or both) from <https://www.lowbluelights.com>
- If you must work on a computer, under fluorescent or LED lights all day get blue blocking / reducing glasses to wear
 - If you need prescription lenses there are many options (BluTech Lenses (<http://blutechlenses.com>), Crizal Previncia, and Zeiss DuraVision Blue Protect coatings) available at your optometrist. It is blue light that destroys your retina and circadian signaling, not ultraviolet (UV) (in natural amounts).
 - If you don't need prescription lenses, consider buying Gunnars (<http://www.gunnars.com>) or similar glasses.
- Use complete blue blocking glasses after dark, especially if using computer / tablet, phone, watching TV
 - Least expensive option is Uvex Skypers ([click](#) to see on Amazon.com)
 - <https://www.lowbluelights.com> also makes models that fit over prescription glasses (and many other great products)
 - If you need prescription glasses, you can get custom made blue blockers (tinted) for night time. I love mine. Ask for details.
- Protect your skin from blue light (TV, computer, phone, etc.) after dark also -- skin is very photosensitive!
- In the winter, days will be shorter. Turn off the lights early and go to bed! The longer dark cycles mean that biologically we are meant to have longer sleep cycles in the winter. Inconvenient? Yes. Healthy? Yes.
- Try to leave at least 12 hours between your evening meal and your breakfast (ie, don't eat too late)
- Don't eat after dark, particularly not carbohydrates. This applies to beverages also.
- Chronobiologically, the best time to exercise is 4-6pm before dinner.
- Respect, treasure and guard your sleep. It is critical for good health!
- Sleep in as dark and cool a room as possible. Remove (or unplug) all electronics from your sleep environment. Turn off WiFi routers at night (put a lamp timer on them -- better yet get rid of them) and get rid of cordless phones in your home. Put your mobile phone on "airplane mode" as often as possible and don't hold it up to your head to talk -- use the speaker phone as much as possible. Smart meters are problematic. Opt out. Search "hazards of EMF" on the internet for more info.
- Consider purchasing a Magnetico Sleep System (<http://magneticosleep.com>) They are not cheap, but last forever and will help improve your health. Ask me about a discount code for 15% off.
- You won't like this: if you work a night or late evening shift -- you need to make a change!

Nutrition

The food you eat is the fuel for your body. Not only is WHEN you eat important (above), but WHAT you eat matters. A lot. Some foods are more likely to cause inflammation and therefore contribute to more rapid decline of your health. Aging is caused and hastened by inflammation – molecular / timing chaos.

- Adequate water intake is very important. Unless you have a medical problem (CHF, kidney failure) which precludes it, I recommend drinking a lot of water (at least 2 liters / day) to the point of keeping your urine very clear. It is possible to drink too much water and drop your serum sodium level (hyponatremia) but this is difficult and I trust you won't! Ice cold water helps increase your metabolism and is therefore helpful to many, especially if trying to lose weight.
- I recommend non-fluoridated spring water. Fluoride is a dielectric blocker which decreases Exclusion Zones (EZs) in your intracellular water. This makes your body less efficient at storing / using energy. It has been classified as a developmental neurotoxin in The Lancet (renowned medical journal) and has other known adverse health effects ([Click here](#))
- We are fortunate to live near great spring water, which is an excellent choice. Try [Mt. Shasta Spring Water](#) or [Castle Rock Water](#). Both deliver locally and Castle Rock can supply water in glass bottles -- a better alternative than plastic. Alternatively, locally in the Redding area, [Alhambra](#) can deliver non-fluoridated reverse osmosis filtered water. As far as tap water goes, Redding tap water isn't bad, but spring water or RO water is much better for a variety of reasons I can explain if you wish.
- [Earthpaste](#) is a great non-fluoridated toothpaste (available online and locally at Holiday Market, Orchard Nutrition, Enterprise Health Foods). If you eat well you won't have to worry about tooth decay.
- I suggest you adopt a "Paleo" type low-glycemic index diet, and focus primarily on eating locally grown organic produce that is in season. Go ketogenic in the winter. [Country Organics](#) is a good place to shop and also delivers. Look up "Paleo Diet" and "Ketogenic Diet" on the internet. Here is a [link](#) to a great lecture, or search "Youtube David Diamond 2016 Metabolic Therapeutics" and watch.
- There is a wealth of information online about the Paleo Diet, and some good books are [The Paleo Solution](#) by Robb Wolf (formerly of Redding) and [The Paleo Diet](#) by Loren Cordain, PhD. A detailed discussion of this approach to nutrition is ... worth reading a book! Lots of info there and there are many great recipe books available. Another great website which gets you most of the way there is a called [Mark's Daily Apple](#). Try it for 30 days and see how you feel! Guaranteed better.
- Eat lots of in-season green and brightly colored vegetables, and lots of cruciferous vegetables. These are tremendous sources of anti-oxidants, essential B-vitamins, and other anti-cancer and anti-inflammatory compounds.
- Cook with lots of fresh spices such as turmeric, cilantro, curry, ginger, garlic, rosemary, and basil.
- Add as much seafood as possible to your diet as your primary protein source. Seafood is the best source of DHA (a critically important omega-3 fatty acid) and extremely nutrient dense. Focus on wild-caught (not farmed) seafood, and in order of best to less good you should eat: oysters, other shellfish (clams, mussels, scallops), small crustaceans (shrimp), small fish (sardines, anchovies), crab / lobster, salmon, other large / predatory fish. I highly recommend the book [The Epi-Paleo Rx](#) by Dr. Jack Kruse (www.jackkruse.com) for more information. Not easy reading but very worthwhile. His website and blog are even more difficult to read but -- they are critical to understanding quantum biology and what drives health. Worth the work!
- You should buy grass fed and / or organic meats as much as you can afford. Lamb is always grass fed. You may be able to buy a grass fed cow from a local farmer. Wild game is great if you are so inclined. Why? Because grass fed meats have fewer toxins, less bad fat, and much more DHA. Chicken and turkey are not ideal, but acceptable occasionally.
- Add naturally fermented foods (fermented (not pickled)) such as sauerkraut and pickles (Bubbie's is a good brand available locally at Holiday Market), Kombucha (fermented tea), KeVita drink, etc. Fermented dairy products such as yogurt and kefir are fine but remember in the Paleo model you are trying to eliminate or at least reduce dairy products. These help increase and restore the diversity of your gut flora. Very important.
- Limit alcohol consumption to 1 drink per day, occasionally 2 for men. Dry red wine is preferred for its resveratrol content. Argentinian Malbec is known to have the highest resveratrol content of any wine as the grapes are stressed by growing at a high altitude and in a dry climate. Interestingly, dark chocolate, 85% cacao or more, without added sugar also has a very high resveratrol content. Resveratrol is an extensively studied nutrient which has many anti-aging benefits.
- If you are significantly overweight (>20 pounds) you should consider the Leptin Reset Protocol. See the "[Getting Started](#)" section of Dr. Kruse's website or search your patient portal online library under the nutrition section -- I have uploaded some information about how to go about the protocol.

Fasting and Fasting Mimicking Diets

No section on nutrition and aging would be complete at this point without some information on Fasting! Fasting???? Is that nutrition? Or a lack of nutrition??

Recently there has been much excitement and research in the Anti-Aging and Regenerative Medicine community about the benefits of fasting. Research shows that fasting has many physiologic benefits including:

- Reducing systemic inflammation
- Promoting mitochondrial autophagy (the recycling of “bad” mitochondria)
- Reduction of insulin resistance and decreasing blood sugar in type 2 diabetics
- Reducing cancer risk and antineoplastic (cancer) activity
- Weight reduction
- Decreasing blood pressure
- Improving lipid panel
- Improving immune system function
- “Rebalancing” the immune system and helping with many autoimmune diseases

We are finding fasting to be a tremendous tool in many of our patients and suggest that you learn about it and adopt a fasting strategy that fits your life (in addition to using the dietary recommendations as above.) There are a variety of strategies that are adaptable to nearly any lifestyle. I suggest daily intermittent fasting or “time-restricted feeding” strategy that confines your eating to daytime hours (i.e. before dark) and no more than an 8 hour period of time (ie, at least a 16 hour fast daily). No snacking! Do this several days a week (or every day...) You may wonder how this interacts with the Leptin Reset Protocol and it does very well ... but it can be difficult to manage from a social standpoint if dinner is your most social meal of the day. We can discuss this further if you like.

I also suggest periodically doing longer “water” fasts (24-36 hours ... or more ... as your lifestyle allows and health conditions demand.) You will start to see the benefits very quickly in a variety of domains of your life. And ... it is not as hard as it sounds once you get past the psychological challenge of thinking you need to eat 3 or more times per day!

Another tremendous tool that we offer in the clinic is the ProlonFMD (Fasting Mimicking Diet) kit. This is an excellent strategy that offers many of the benefits of fasting while you still get to eat something! It can be an excellent way to augment your fasting strategy, or a great standalone fasting technique.

If you are unwilling or unable to adopt another fasting strategy then I highly recommend a ProlonFMD kit once a month or at least 3-4 times per year to help optimize your health!

I’m happy to discuss this with you in more detail at any visit. If you are taking medications to control your blood sugar (i.e. medications for diabetes) please do not adapt fasting strategy unless we work very closely together (or you work with your primary care provider) to make sure your blood sugars don’t drop too low – you will likely need to reduce your medications as time passes.

To learn more about the benefits of fasting and some various strategies and methodologies, I suggest checking out the follow resources:

- Search for YouTube videos by Dr. Jason Fung. He gives excellent, easy to understand lectures and explanations of how fasting can be helpful.
- Purchase Dr. Fung’s two books:
 - The Complete Guide to Fasting (with Jimmy Moore)
 - The Obesity Code
- Buy and read The Longevity Code book by Dr. Valter Longo. He is a world renowned researcher in the anti-aging field who has done much scientific work around the benefits of fasting, and developed the ProlonFMD kit.
- Go to ProlonFMD.com
- Watch “The Fasting Movie” available on the internet at fastingmovie.com
- Watch “The Science of Fasting” documentary, available on Youtube, Netflix, and Amazon Prime streaming video (and many other sources)

Supplements

In a perfect world none of us would need any supplements or nutraceuticals. However, most of us either have lived or continue to live in a suboptimal environment which has created various deficiencies and challenges to our health. Therefore, I recommend some targeted supplements for your health. For your convenience, some of these are available here at the clinic at competitive pricing, some are available from the clinic on an autoship basis, but you are under no obligation to buy here. If you choose to buy your supplements elsewhere, please choose pharmaceutical grade, tested, and verified products. Suggested brands are Life Extension, Orthomolecular, Pure Encapsulations, Metagenics, Designs for Health, and Nordic Naturals.

In order to regain / attain optimal health you should expect to spend from \$75-\$300 on specific supplements / month. You may not need to do this forever as once you get some health challenges sorted out and your lifestyle improves we can start paring back the supplements. While this may seem expensive, the wellbeing that you can achieve along with the significant improvements in your health and the reduction of the cost of disease and suffering in the long run will be well worth it!

Here are the specifics I recommend for ALL of my patients:

- Pharmanex LifePak Nano and LifePak are among the best multi-vitamin / mineral products available. If you are taking another multi-vitamin and it doesn't help raise your skin carotenoid score it is unlikely that it is working to help raise critical anti-oxidant levels. You can certainly get these trace minerals / vitamins in other ways (eat a LOT of green / colored vegetables, juicing, etc.) but this is one of the best out there and I highly recommend it. It is what I take.
- Fish Oil (DHA/EPA) 2000mg / day. If you take AgeLoc Youth or LifePak Nano you won't need additional fish oil. Eating seafood is the optimal way to get your critically important DHA, but most of us don't / can't eat enough seafood.
- **The best way to get your vitamin D is from the sun**, however, additional Vitamin D, 2000-4000 IU per day is recommended. We are aiming to get your vitamin D level between 60-100 ng/ml. Vitamin D is actually not a vitamin (a co-factor in an enzymatic reaction) but a hormone that conveys critical signals to 2-5% of your genes. Numerous studies have shown Vitamin D to be critical to cardiovascular health, bone health, brain health, and it helps prevent cancer. Recommended products are Carlson's or Orthomolecular.
- CoQ10 100mg/day or better yet, MitoQ, which is an optimized form of CoQ10 that is better absorbed into the mitochondria where it is needed. Most of us benefit from the MitoQ Heart Formulation, even taking the standard formula or another will be helpful.
- Probiotics. Best to eat more fermented / live foods as above (unless you can't for some reason) but the probiotics I recommend are Dr. Ohhira's (<http://drohhiraprobiotics.com>) available online and Orthobiotic, which is available at the clinic.
- Mitochondrial supplement. The root of most aging and body system dysfunction is mitochondrial dysfunction, and making sure your mitochondria have the right substrates is critical. The supplement I recommend for this is Orthomolecular Mitocore. It is available at the clinic.
- This list of supplements is important for everybody. Your specific condition may require other supplements on either a short-term limited basis, or maybe even on a long term basis. Everyone of us is individual and will have different needs, but expect the above are a baseline with a few others that I will tailor to you.

Exercise

It's difficult to overstate the value of exercise in improving and maintaining your health. It is CRITICAL. Consider this a prescription for exercise! It is more important than any pill or supplement you can take, and superseded only by your light environment and diet (ie, you can't out exercise a bad diet.)

- If you are Leptin Resistant (>20 pounds overweight) I recommend the Leptin Reset Protocol before starting any serious (hard) exercise routine. In the meantime, you should focus on light exercise and walking -- outside in the sun (no sunglasses, glasses, or contacts) as much as possible. Search the resource list on the patient portal for Leptin, or look under the Nutrition documents.
- Heavy exercise may not be advisable (yet) if you have a serious Leptin or Cortisol Issue. Discuss with me.
- Once you have completed the Leptin Reset (8 weeks minimum) it is time to start both HIIT (High Intensity Interval Training) and Weight Training. Seek help / personal training / coaching to design the best regimen for you.
- I recommend scheduling a Wellgate Wellness Assessment at Wellgate Sports Club. This multi-faceted test includes a VO2Max, Resting Metabolic Rate, and Functional Movement Screen. From there we can help design a HIIT routine for you that will get you where you want to be in as little time as possible.
- Although the 220- (your age) formula for maximum heart rate is nice for the "average person", it likely has NOTHING to do with you. The only way to know what you should be doing for your fitness is to get regular VO2Max testing and using the results to design a personalized workout. It is well worth the money.
- Get a heart rate monitor (can be had for around \$60) and use it for your workouts. You should strive to work at between 60-80% of your maximum heart rate (as determined by your VO2Max test) for 30-45 minutes every day, or follow a HIIT template which we can discuss. If you aim for every day you might hit 4-5 times / week and that will make some real progress!
- If you have any chest pain, severe shortness of breath, lightheadedness, palpitations, dizziness, nausea, vomiting, nearly pass out, or have pain radiating to you neck, arm, jaw or any other worrisome symptoms you need to stop exercising immediately and reconsider (go to the ER if the symptoms don't resolve!) You may need to start out at a lower intensity or talk to your primary care doctor about getting a stress test before undertaking a further exercise program.
- Work with a personal trainer to develop a weight training (resistance) routine that works for you. It need not be complex or take hours to do -- 20 minutes with the right routine 2-3 times / week can change your body significantly! A great book about this is Body by Science by Dr. Doug McGuff and John Little. Buy it, read it, do it!
- You should do some stretching exercises several times per week. Again, work with a personal trainer or find a good book (Becoming a Supple Leopard by Dr. Kelly Starrett is great) to help you personalize a routine. You can accomplish a lot in 10-15 minutes per day (and it may help count towards your mindfulness work -- see below). Maintaining flexibility as you age is very important. Pilates and Yoga are wonderful for this and help with mindfulness also.
- Finally, working on your balance and proprioception (ability to sense where parts of your body are in relation to others in space) as you age is critical to help prevent falls and maximize mobility. Some simple exercises you can do include standing on one foot (eyes closed to make it difficult!) while brushing your teeth or watching TV (not too late at night!), walking around familiar rooms with the lights off using all your senses, standing on one leg and moving the other around in front, behind, and to the side, etc.

Mindfulness

Also very important to your health is taking care of your brain. There is a mounting body of medical evidence showing that developing the capacity of your mind to relax and develop a dominant alpha wave pattern is critical to creating and maintaining good health. There have been recent studies pointing to the fact that your vagus nerve tone (how well you can relax) may well bear on how severe a cancer you end up getting if you are unlucky enough to contract cancer! If you have a problem with elevated cortisol or if you have developed HPA Axis Dysfunction (the condition previously known as Adrenal Fatigue) this is doubly important. While a detailed discussion is beyond the scope of these recommendations, I suggest you work on cultivating this.

Do something every day that makes your heart sing! Enjoy your life! Indulge in your spirituality. Adopt a practice such as Meditation, Yoga, Pilates, Tai Chi, or Qigong (the last four help with fitness and flexibility also.) Or, if you just can't get away from a technological solution I highly recommend the HeartMath "Inner Balance" device or the EMWave products. These can be found online at <http://www.heartmath.com>

Preventative Care

Although there is substantial overlap between Age Management Medicine and Primary Care Medicine, it is not complete, and it is very important for you to continue to see (or establish care) with a primary care physician who will continue to manage routine preventative care. I recommend:

- Have an annual physical exam with your personal physician.
- Have a periodic bone density exam such as a DEXA scan. Hormone therapy can improve bone density.
- Schedule annual eye exams and pressure measurements.
- Schedule annual skin exams.
- Talk to your primary care physician regarding colon cancer screening.
- If you are woman
 - Perform regular breast self-exams
 - Schedule annual pap smears and / or pelvic exams
 - Consider thermography as an alternative to mammograms if you are concerned about the radiation (I am). <http://www.reddingthermography.com>
- If you are a man
 - Perform regular testicular self-exams
 - Have your PSA checked as per recommendations
- If you smoke -- you must stop! I recommend the use of nicotine gum to help you stop smoking. Vaping may not be much better than smoking as there are toxins such as formaldehyde often found in the solutions.