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Focus on

A Healthy Lifestyle: Exercise

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WELCOME TO A HEALTHY LIFESTYLE!

For our patients (and us!) effecting a change in lifestyle is a daunting challenge. It can be overwhelming to confront a lifetime’s worth of habits and create real change. It’s also hard to find motivation sometimes when we don’t know exactly why we are putting ourselves through the struggle to change our habits – why exercise, diet or try to reduce stress?

This article is the first in a series that focuses on the scientific case for a healthier lifestyle. Many of the orthopedic conditions we see could be either prevented or lessened in severity by following the scientific principles that define a healthy lifestyle.

This three-part series of articles will discuss Exercise, Diet & Nutrition and Stress & Sleep. I will present solid scientific evidence that establishes why these are important to help patients understand “why” change is important. Finally, I will also provide concrete examples of how to accomplish the goal of a healthier lifestyle.

THE SCIENTIFIC CASE FOR A HEALTHIER LIFESTYLE—EXERCISE

While the visible benefits of exercise are obvious—trimmer

figure, stronger muscles, improved cardiovascular fitness, recent research has established that the benefits of exercise extend far beyond what we can see physically.

What exercise can do for you:

- Improve brain function
- Sharpen memory
- Speed up learning
- Improve mood
- Decrease depression
- Delay/prevent dementia (Alzheimer’s disease)
- Reverse age-related organ decay
- Slow aging

How does exercise do this? Exercise improves blood flow to the brain and triggers the formation of substances called growth factors that stimulate the growth of new neurons, and help repair and protect brain cells from degeneration. **Depression**—Multiple studies show exercise lessens depression, as well or better than drug-based therapies without the side effects. Interestingly, both aerobic exercise and resistance training result in the same improvement for symptoms of depression.

Dementia—Studies also suggest exercise can delay or prevent the onset of Alzheimer’s dementia, a disease with profound socioeconomic impact on our

aging society. Exercise can even reverse age-related decay in the brain. A part of the brain called the hippocampus (known as the “gateway to memory”) normally shrinks with age and research has shown it increases in size with exercise.

Slow aging—Exercise also produces a molecule that protects the part of the chromosome that repairs DNA damage, which is related to aging. Life span can be increased by up to 5 years.

Exercise can also improve:

- Skin health & wound healing
- Muscle strength & endurance
- Bone density & strength (reduces fracture risk)
- Lower risk for diabetes, heart disease, high blood pressure and cancer

HOW MUCH EXERCISE IS ENOUGH?

WHO recommendations (per week, adult age 18-64):

- ≥ 150 min moderate, or
- 75 min vigorous physical activity
- Can divide activity during into episodes lasting ≥ 10 min
- 2 episodes (30 min each) of resistance training per week





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These are guidelines that may need to be modified based on a patient's health profile. Anyone starting a new exercise program should check with their doctor to make sure it is safe for them to participate.

MODERATE EXERCISE

The great thing here is that much of what we do as part of our daily life counts as moderate exercise – activities like cleaning the house, gardening, or raking leaves. Simple choices like taking the stairs rather than the elevator or walking rather than driving short distances add up over time.

VIGOROUS EXERCISE

More vigorous exercise might include brisk walking, cycling, swimming, dancing, hiking or playing sports.

RESISTANCE TRAINING?

What about resistance training, do I have to join a gym? Health clubs do offer benefits over working out at home, including a larger selection of exercise equipment as well as a social network to make working out more fun. However, resistance training can be performed using just body weight, through movements such as squats, lunges or push-ups. Activities such as yoga and tai-chi combine body weight resistance

training with movements that improve flexibility and balance and have been shown in the orthopedic literature to prevent falls.

“Sarcopenia” is the term that describes age-related loss of muscle mass over time. After the age of 30, we lose between 3% and 8% of our muscle mass per decade and after age 40 we lose about 1% per year. Sarcopenia is reversible through resistance training.

HOW TO GET STARTED?

The main point here is that exercise has value far beyond the benefits we traditionally have attributed to it and that virtually any effort we make to increase our fitness through exercise will have far-reaching benefits to us.

The goal of improved fitness is achievable. Resources that exist to help you get started include: your friendly family doctor or orthopedic surgeon, physical therapist (provide customized home exercise and fitness program) and personal trainers (provide structure, knowledge and accountability).

After you identify your preferred workout regimen, you have to figure out how to make it a priority in your schedule. Many of us take care of others—parents,

children, spouses—before taking care of ourselves and it is easy to forget about our own needs. You have to take care of yourself before you can effectively care for others. Examples of how to find time for exercise include: do it first thing in the morning, create time during your work day, walk the dog in the evening, find an exercise buddy.

Remember, the little things count too. It doesn't all have to be gym shoes and spandex. Clean out that garage, wash your car (or better yet, wash my car!), weed the garden, give the dog a bath ... it's all exercise and it's all good.

SUMMARY

To live longer, healthier and happier lives we need to get out and move. An effective exercise program doesn't require fancy clothes or expensive gym memberships. Resistance training can be done at home using body-weight exercises and many daily tasks count as needed exercise. It may take some effort to budget your time to allow for daily exercise but, as the science shows us, it is well worth it.

So, turn off your cell phone, grab an apple, take the dog for a walk and say hello to someone new. It might be the best thing you do today!

