

The Slow Fix: A New Look at an Old Problem

When I was a bright-eyed graduate student studying rehabilitation medicine in the college of medical sciences, I attended a captivating lecture on the history of medical progress that has become a major part of my philosophical approach to geriatric medicine. The gist of the lecture was that medical progress had a relatively slow growth phase until the last several hundred years. Since that time, with the discovery of microorganisms, antibiotics, sanitation, and disease processes, the knowledge base has grown dramatically. In particular, the last 50 years have seen exponential growth in the science and understanding of disease and intervention opportunities.

Most recently, as infectious disease has, to some degree, come under control, at least for the majority of Americans, medical focus has shifted to chronic illness. At the beginning of the 20th century, life expectancy was barely into the late fifties or early sixties. By the end of the 21st century, life expectancy is likely to be into the nineties. As the aging population contends with these chronic conditions, it is critical that long-lived solutions be found. For example, as recently as 20 years ago, a knee arthroplasty in an older patient might need to last only 10 years, while in the not-too-distant future, the same replacement surgery might need to last for 40 years or more.

Because people are living longer, and because this aging group has clear expectations about their quality of life, it is essential that treatments and interventions be forward looking and geared for the long term. We cannot always choose a strategy that is

executed quickly or the drop of a hat that could appropriately be called the *Quick Fix*.

The *Quick Fix* is often characterized by a desire to get back to whatever it was you were doing before, with the least possible delay. Case in point: Ronnie Lott, a defensive back with the powerhouse San Francisco Forty-niners crushed the tip of his little finger in a collision with an opponent in a late season football game. Prognosis: miss the playoffs with a pin in the bone and a full hand cast. After consultation with experts and no alternative treatment ideas, Lott suggested a novel approach – clip off the damaged finger-tip above the first joint. See you on Sunday. The 'Niners went on to win the Super Bowl with Lott playing his usual pivotal role. Summary: in this case, after weighing all the costs and benefits, not just the medical ones, a reasonable decision was reached, but would this have been a prudent decision if the affected body part had been a damaged knee or neck? Probably not.

Every patient naturally wants a quick fix to his or her problem. Without pausing to reflect on the most prudent, long-term strategy, society's need for instant gratification often results in regrettable decisions that may have serious ramifications later in life. For example, chronic over-medication can lead to gastro-intestinal problems later in life.

An alternative to this *Quick Fix* mentality is what I like to call the *Slow Fix*. The *Slow Fix* approach involves a high degree of informed decision-making, proper perspective on the available approaches, a good support structure with consultation and second opinion, and restraint to avoid jumping to wrong or sub-optimal decisions. There are five key areas or

components of the *Slow Fix* solution. The components that need to be investigated are as follows:

1. *Recognition of physical changes.* As one nears the age of eighty and beyond, the body undergoes physiological changes. As a medical practitioner in the areas of gerontology and geriatrics, I try to have patients believe that the longevity of vigor and good health can be extended indefinitely. Certainly, some 90-year olds are in better shape than some 60-year olds, but equally as certain is the reality that eventually certain body systems go into decline as senescence sets in. Certain controllable factors like diet and exercise, combined with certain random factors like good genetic stock, can forestall the inevitable, but the more prudent approach is to acknowledge that change is coming and to prepare appropriately.

Education and awareness about proper physical conditioning, nutrition, preventive medicine, and a host of other issues are the keys developing a more astute aging populace. Education about anatomy, illness, and well-being should begin at an early age and should be taught to everyone, not just those that want to focus on the life sciences. For example, while it may be unnecessary for all to be instructed in the intricacies of the Krebs Cycle or the tertiary structure and folding of proteins, having a rudimentary understanding of our bodies, what can go wrong with the parts, and how to prevent or fix the problems, seems not only useful but essential. Imagine going to the doctor or some other medical practitioner and being told that you have developed a condition that will require medical intervention. The form of that intervention is one of the following

depending on a number of circumstances: surgery, amputation, exercise, or a life with pain. The uninformed patient has not a clue even what questions to ask, let alone truly understanding what the options, and pros and cons of each, are. Now imagine a more informed patient that understands something about medicine, knows what to ask and whether to seek a second opinion, and hopefully was smart enough to undertake some precautionary measure a decade ago. Which patient would you rather be?

Now, making advanced health education, prevention, and wellness classes mandatory for the entire population may be impractical at this time, but certainly moving in that direction would seem prudent. Health education primers for elementary and middle school children may help to facilitate an early comfort level with scientific and medical disciplines that may help the general population feel better equipped to tackle the complicated decision-making that may be necessary later in life. Having this greater comfort level and in general, a more informed population would be beneficial to all involved: practitioners, patients, and family members.

2. *Feeling good about your life.* Guillaume Apollinaire, the great French surrealist poet once said something to the effect that, “in our constant pursuit of happiness we should pause and just be happy.” The things that cause us happiness, that make us feel good are important to our well being. The activities, relationships, or places that bring joy into our lives should be explored and understood; and the earlier in life, the better. Constant evaluation of this principle is important and can lead to a more positive and fulfilling outlook which can lead to a lifetime of beneficial heart-felt improvements.

3. *Nutrition.* Eating right and getting the right level of supplements is important, but there has been little truly objective research in this area. Unfortunately, this lack of a real scientific literature base leads to rampant nutrition “pseudo-science” that leads to exploitation of the general population. Fad diets, unproven supplements, and other gimmicks are marketed with reckless abandon to the end that its impossible to sort out legitimate programs and products form bogus ones. Certainly, more research is required, as are protective consumer programs to prevent exploitation and abuse. Suffice it to say, however, that proper nutrition and eating habits are part of a healthy lifestyle.

4. *Sleep.* On the other hand, there is a wealth of literature on sleep and its medicinal benefits. The sleep literature has shown that every individual has a particular requirement for the ideal number of hours of sleep per day. It is best to figure out the amount of sleep that is best for you and to attempt to establish a sleep routine. Getting too much or not enough sleep over an extended period of time, or having an erratic sleep pattern is not healthful and can lead to inefficiency, accidents, injuries, and other impediments to a healthy, productive, and energetic lifestyle. As the old proverb says, “don’t burn the candle at both ends.” But as an equally astute, but clearly newer proverb advises, “just do it.” Striking a happy medium between the extremes of slothfulness and hyperactivity is suggested for each individual, as the particular make-up of the individual dictates.

5. *Exercise.* An essential part of a healthy lifestyle, one that leads to longevity, is a good balance of cardiovascular and strengthening exercise. The literature very clearly supports

the concept that exercise is beneficial and can provide a better prognosis for patients with a variety of conditions; from hypertension to Parkinson's disease and from osteoporosis to stroke.

It is interesting to note that muscle conditioning (or lack thereof) is a good indicator pain and dysfunction. For example, studies have shown that radiographic imaging (x-rays) is less indicative of functional decline than a dynamometry muscle test. When patients were asked to describe a functional pain or disability there was a better correlation between that pain and a muscle strength test than with joint x-rays. I suggest that dynamometry check-ups should be prescribed like dental check-ups. The test can establish which muscle groups are weak and the specific strengthening programs can be designed to prevent decline. This is truly a preventive, educated approach. What could be more eye opening than to administer a test that clearly demonstrates below average strength for a muscle group compared to the norm for the age group. Truly an incentivizing and motivating revelation and an obvious explanation for that difficulty in walking or getting up the stairs. As progress (i.e., strengthening) is accomplished through a therapeutic or rehabilitative exercise regime, the patient can attach a concrete result (e.g., a higher strength reading) to the reduced joint pain. This translates into an ability to resume everyday activities and to enjoy them, pain-free!

Along with strength, other components of physical function can be improved through exercise including endurance, flexibility, and posture. Each of these attributes can be improved with exercise and can make a dramatic difference in feelings of well-being.

However, if we do not exercise and develop the musculature to encourage good posture, flexibility, and endurance, we'll be bed-bound or in a wheelchair at an early age.

Exercise programs should be designed to incorporate all of the essential components of fitness (i.e., strength, flexibility, and cardio-vascular endurance), but they must also be designed to meet the particular needs of the individual patient. There are generic exercise standards that can be used as the building blocks for addressing a particular problem, like low-back pain or a torn shoulder muscle, but the best program for a particular individual must be tailored to address the idiosyncrasies of their unique condition. For example, postural strengthening can require strengthening of one or more muscle groups depending on the specific weakness of the individual patient. The specific program will be developed based on an initial evaluation, changed based on follow-up evaluations, and fine tuned over time until a maintenance set of exercises can be developed to keep the patient in a proper functioning capacity, after recovery to a norm has been established.

The solution, exercise, is relatively easy to administer, but it is not a pill. It is not a quick fix, but rather a timed, incremental, and long-term fix perfected through expertise and commitment. Practitioners must be committed to the long view and a disciplined thoughtful approach and patients must commit to the exercise program and believe in the approach.

Summary

Set goals in the five areas identified in the discussion above. This is the *slow fix*. We should consider these five areas, look at where we are and set goals for the near-term and the more distant future. This should not just be done in adult life when someone reaches 70 or 80 years old, but early in life, as a young adult and even as early as middle- and high-school years. Instead of looking at the problems of aging, it is the obligation of every individual to work on the solution. Committing to the *Slow Fix*.