

FRAMEWORK : SELF TEST
www.frameworkprogram.com

1. Would you say that you're an optimist?

- GREEN: Absolutely
- YELLOW: Still trying to figure that one out
- RED: What's the point, it all sucks anyway

Optimism: Mindset has a profound influence on your body. Positive outlook not only impacts medical conditions like heart disease and cancer but also is important for optimal musculoskeletal health. Ailments become less disabling, pain levels are reduced and healing accelerated. With a little practice anyone and everyone can improve their mood. Positive results will be felt not only by your, but also those around you.

2. Do you have a family history of knee or hip arthritis?

- GREEN: No
- YELLOW: Yes
- RED: Knee or hip replacements?

Family History hip/knee arthritis: We know that there are genetic determinates of certain forms of arthritis. This is not only true of rheumatoid conditions like rheumatoid arthritis and lupus but also even the common "wear and tear" type osteoarthritis, especially in the hands, hips and knees. Check your family tree. Some of us need to focus more on prevention, at earlier ages than others.

3. Do you have a family history of back problems?

- GREEN: No
- YELLOW: Yes
- RED: Spinal surgery?

Family History low back pain: Back pain is some common in our modern society that it's hard to say what exactly is the exact cause in any given case but we do know that genetics play a role. Other important causes include past injury, posture, being overweight or obese, smoking, sedentary work, heavy manual labor and pregnancy. Higher levels of fitness protect against back pain and back attacks.

4. Do you snore?

- GREEN: Never
- YELLOW: Sometimes
- RED: Your spouse is ready to toss you out

Snoring: Both quantity and quality of sleep count when it comes to sleep's restorative abilities. Sleep associated with snoring is low quality sleep. When normal sleep patterns are interrupted (which happens often in cases of snoring and conditions like sleep apnea), there is a higher incidents of certain musculoskeletal pain syndromes like fibromyalgia. Also proper sleep is important in weight control, mood, and recovery from workouts and sport. Healthy sleep cycles can also be interrupted by a wide variety of musculoskeletal ailments. Power naps can also be restorative.

5. Do you wear out your shoes unevenly, one shoe versus the other?

- GREEN: They're the same
- YELLOW: Maybe a slight difference
- RED: Very different

Shoe wear: Your pattern of shoe wear is almost as unique as your fingerprint and relates not only to your gait pattern but also possible issues with spine and leg alignment, leg lengths (i.e. one leg longer or shorter than the other), lower extremity weakness and foot and ankle biomechanics such as pronation (flat foot) and supination (high arch)- all of which can easily be screened for. Check both your shoes and activity related sneaker wear patterns especially if you have had recurrent overuse type injuries.

6. Do you ever limp?

- GREEN: No
- YELLOW: Maybe after a hard workout
- RED: Yes

Limp: Pain is nature's signal that something is wrong and a limp is your body's way trying to lessen the load on an injured body part. Different injuries often have their own unique type of limp and with many chronic mild conditions, individuals may even be unaware that they are actually limping. If there is any doubt, ask your friends. They will know. Once you are limping, it is very easy to throw things

out of wack and cause other problems with your frame in addition to the one that got you limping in the in the first place.

7a. Women, have you ever been pregnant?

- GREEN: No
- YELLOW: Yes, but it was fully resolved after delivery
- RED: Yes, and it still bothers me

7b. Did you have any significant musculoskeletal problems (such as knee pain, back pain, sciatica) during or after pregnancy?

- GREEN: No
- YELLOW: Yes, but no problems
- RED: Yes, and my body has never been the same

Pregnancy: Pregnancy takes a major toll on your body. The combination of weight gain, postural changes, and hormone surges resulting in laxity (loosening and weakening) of ligaments and joints can cause a variety of problems with almost every part of your frame especially lower back, hip, knees and feet. Pinched nerves are common like carpal tunnel (possibly related to fluid retention and swelling) and sciatica (from low back issues or fetal positioning). Tendonitis also occurs often. Much of that can be prevented. Many obstetricians tell expecting mothers that all will be fine after pregnancy but I believe this is not the case. Pregnancy leaves your frame vulnerable and each additional pregnancy makes things a little worse. The good news is that much of this is preventable with exercise and proper nutrition. Exercise is important before, during and after pregnancy. The big challenge is finding the time and energy once baby arrives, especially if you are heading back to the work place. I believe that if men got pregnant, there would be comprehensive rehab type programs to get them back in shape as if they were athletes recovering from a major sports injury. Not so for women at this point in time.

8. How stressed-out are you?

- GREEN: Occasional stress, but I seem to handle it well
- YELLOW: I feel overwhelmed at times
- RED: Got a Valium?

Stress management: Stress can be hazardous to your health. It can negatively impact numerous systems from the cardiovascular (heart disease and stroke) to the endocrine and immune systems. Stress can be particularly damaging to your

musculoskeletal system or frame. This includes higher incidents of neck and lower back problems as well as other chronic pain disorders. Stress can amplify pain signals. Stress also can impact healing of a variety of tissues with negative consequences in terms of injury recovery and surgery related complications. Problems can occur from sudden acute exposure to stress or the more common chronic (even low grade) accumulation of, or exposure to, stress. We all have stresses of sorts and learning to manage and diffuse it is the key to avoiding its wrath in terms of your health.

9a. What is your body mass index?

HEIGHT	WEIGHT (IN POUNDS)																		
4'10"	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177
4'11"	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183
5'0"	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189
5'1"	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195
5'2"	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	201
5'3"	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208
5'4"	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215
5'5"	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222
5'6"	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229
5'7"	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236
5'8"	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243
5'9"	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250
5'10"	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257
5'11"	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	264
6'0"	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272
6'1"	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280
6'2"	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	288
6'3"	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295
6'4"	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	303
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37

- () GREEN: Good weight BMI below 25
- () YELLOW: Mild overweight 25–29.9
- () RED: Higher level overweight and/or obese over 30

9b. Are you significantly overweight or underweight?

- GREEN: Can't pinch an inch, but there is something there
- YELLOW: Nothing to pinch, but I can't count my ribs
- RED: Have to run around in the shower to get wet

9c. Do you find it harder than 5 years ago to maintain your ideal weight?

- GREEN: No problemo
- YELLOW: I've added 5 or 10 pounds in the past 5 years
- RED: I've had to have my clothes altered to fit

9d. Can you pinch an inch?

- GREEN: No
- YELLOW: Yes, while sitting
- RED: Yes, standing, too

Body Weight: Being both overweight and underweight can have negative consequences for your frame.

If you are overweight you place undue strains on your musculoskeletal system. Forces across your joints, muscles, ligaments, and tendons are amplified. The result is back pain and higher incidents of arthritis especially in the knees, hips, and foot/ankle area. Being overweight not only causes osteoarthritis but also results in more rapid acceleration of wear process once it is present. For every extra pound you carry your knees and hips think you have 5 and that adds up quickly. If you are 10 lbs overweight, your knees think it is 50. Imagine carrying around a 50 lb dumbbell all day. You'll get the idea pretty quickly. The opposite can work in your favor and that is why even small amounts of weight loss can be helpful. Lose 5 and your knees sense a 25 lb reduction. They start to feel better. Being overweight also affects non-weight bearing joints such as the shoulder- there is a higher incidents of rotator cuff tears in those who are obese.

We are seeing the damage to joints (i.e. arthritis) in overweight people at younger and younger ages. 30 years old with 80 year-old knees, on the brink of a knee replacement. Speaking of knee replacements (or any orthopaedic surgical procedure) there is a higher incidence of surgical complications (wound healing, medical and more) when you are overweight.

So in terms of your musculoskeletal health, there are many great reasons to start shedding those extra pounds and for all of us to pay much better attention to prevention when it comes to our children.

If you are underweight the main musculoskeletal problem usually occurs with females. Anyone (male or female) who is not taking in enough calories (especially higher quality calories) will have problems with athletic and fitness related performance and recovery and will probably lose or start breaking down that ever so important muscle tissue. Injury rates will rise. Females who are underweight and underfed get additional serious frame problems. Once body fat drops to a certain level, hormonal imbalances occur resulting in the “female athlete triad”. This all too common syndrome consists of disordered eating, amenorrhea (abnormal or missed menstrual cycle), and osteoporosis (weak bones). This is especially common in female endurance athletes like distance runners and also gymnasts and ballerinas. Inadequate calcium intake is another factor. The result is higher incidence of bone stress reactions and stress fractures that can be recurrent and disabling.

10. Have you ever smoked?

- GREEN: No
- YELLOW: Not in the past 10 years
- RED: Got a light?

Smoking: You don’t have to be the Surgeon General to know that smoking is hazardous to your health. Traditionally we think of smoke related damage to heart disease, stroke and numerous cancers. Clearly smoking kills but it is also pretty devastating to your musculoskeletal system or frame. Smokers have a higher incident of low back pain and problems including herniated and degenerative discs in their spine. Also smokers who undergo spinal fusion surgery have a significantly higher failure rate. The bones and fusion just don’t heal and that is a big problem with no easy solution. Smoking also interferes with fracture healing and slows down the process leading to longer healing times (“delayed union”). Smoking also increases the risk of a fracture “non-union” in which the broken bone does not heal at all. The healing process is shutdown completely. Smoking also disrupts the microcirculation that is vital to numerous musculoskeletal tissues and as a result there can be problems not only with your spinal discs (which rely on microcirculation) but also problems with major tendons like the shoulder’s rotator cuff (tendon degeneration, inflammation and tears). Smoking also affects wound healing and increases the risk of complications in those undergoing orthopaedic and other surgical procedures.

11. Do you consume more than two glasses of wine (or other alcoholic beverages) a day?

- GREEN: Never

- YELLOW: Maybe once or twice a month
- RED: Once or twice a week

Wine: A glass a wine a day can be good for your health. This is part of the “French Paradox” in which the French enjoy longevity despite a higher incidence of smoking and intake of high fat food. Wine is given the credit for counter acting those other evils. Wine is rich in anti-oxidants, which are good for your overall health and your frame. It can also help with relaxation and stress reduction. When it comes to alcoholic beverages, more is not better and alcohol can be a poison with many negative health consequences. Also if there is an issue with alcoholism or other dependency, you will do better getting your anti-oxidants elsewhere.

12a. Do you have breakfast?

- GREEN: Religiously
- YELLOW: Sometimes
- RED: What’s breakfast

12b. Is it a healthful breakfast?

- GREEN: With fruit, whole grains, and skim milk or yogurt
- YELLOW: Coffee and toast
- RED: Coffee and a doughnut

Breakfast: The old adage “eat like a king at breakfast, a prince at lunch, and a pauper at dinner” is great advice for your frame. Breakfast is the most important meal of the day and seems to set the pace for not only how you will feel and perform, but also how much you will overeat later in the day. Those who eat a high calorie, high quality breakfast (especially with protein) seem to better maintain their ideal body weight and suffer less fatigue later on in the day. Food consumed later in the evening, especially near bedtime, seems to be more easily converted to fat.

13. What’s your daily consumption of fruits and vegetables?

- GREEN: Seven to nine servings and a “rainbow” of colors
- YELLOW: Maybe a green salad with dinner
- RED: I don’t really like vegetables; do fruit loops count?

Fruits and Veggies: The new USDA recommendations are great for your frame. You should accumulate a total of 9 servings combined of fruits and vegetables each and every day. This includes 4 servings (2 cups) fruits & 5 servings (2 _

cups) of vegetables. This is power fuel for your frame. The premium pump. Better than any supplement could ever provide. Unfortunately most of us don't even get close to these recommendations, so start keeping count. Eat a rainbow and chew in Technicolor!

14. How often to you eat oily, cold-water fish, such as salmon or sardines?

- GREEN: Once or twice a week
- YELLOW: A couple of times a month
- RED: There's not much fresh fish where I live

Fish: Fresh fish is part of the Mediterranean Diet (MD) secret to great health and longevity- rich in Omega 3 fatty acids which are not only good for your heart but also your joints, possibly serving as a lubricant. Omega 3's help those with arthritis and even tendonitis.

15. When you eat on the run, where do you go?

- GREEN: Indian, Thai, Japanese, or Greek
- YELLOW: Does the salad bar count?
- RED: Would you like fries with that?

Fast Food: Not all "Fast Foods" are bad. In fact, ethnic restaurants such as Indian, Thai, Japanese and Greek have menu items and ingredients (like olive oil and certain spices) that are great for your frame, helping your tendons, bones and joints.

16a. Do you take an antioxidant supplement that includes vitamins A, C, E and beta-carotene?

- GREEN: Daily
- YELLOW: Most of the time
- RED: That's just for health nuts from California

16b. Do you take a daily multivitamin?

- GREEN: Daily
- YELLOW: Most of the time
- RED: I thought vitamins were for kids

Vitamins and Supplements: In today's fast paced, always on the run society,

most of us do not get adequate amounts of necessary vitamins, minerals and anti-oxidants each and everyday. Nothing is better absorbed and better utilized by your body than the vitamins, minerals and anti-oxidants present in your foods. Having said that, I believe that the vast majority of us would do well to assure adequate daily intake of these essential compounds via sensible supplementation. Your body, especially your frame, will appreciate it and knows what to do with any excess. What it can't do is make up for deficiencies.

17. Do you routinely need to take Advil, Aleve, Motrin, or prescription drugs for muscle, joint, or back discomfort?

- GREEN: No
- YELLOW: Once or twice a month
- RED: More than twice a month

Meds: The regular use of anti-inflammatory and/or pain medications (even those found over-the-counter) should be an alert that something is not right with your Frame and should be checked by a professional. Also recent research suggests that NSAID medications may not be your musculoskeletal systems' best friend and may actually hamper the normal repair and remodeling process needed for tendon, bone and joint injuries. For example, NSAID's can slow down your body's repair or healing of common fractures. Also, recent cardiovascular related issues with NSAID's (i.e. Vioxx and Bextra taken off the market) should remind everyone to carefully weigh the potential risks and rewards of taking any of these medications on a regular or continuous basis. Talk to your doctor and definitely stay tuned for more on this issue. Also, always explore the most natural and safe ways to deal with musculoskeletal issues, as outlined in detail in FrameWork - Your 7 Step Program for Healthy Muscles, Bones and Joints.

18. Combining food and supplements, do you routinely consume 1,200 milligrams of calcium every day?

- GREEN: Yes
- YELLOW: I usually drink some milk and eat some yogurt
- RED: I'm not sure

Calcium: Adequate calcium is essential for a healthy musculoskeletal system. This is especially true for bone health. Inadequate calcium intake results in weak fragile bones (i.e. osteoporosis) which are more prone to fracture. Osteoporosis is a major health issue and its incidence is on the rise. Both men and women are affected although women are much more susceptible. Prevention is the key especially in young females and includes a lifetime of adequate calcium intake

combined with regular exercise, especially weight bearing exercise (weight training is ideal). Unfortunately, most of us are not meeting daily calcium requirements so a deficit will build up. Prevention is so important because once osteoporosis occurs, it is very difficult to reverse.

19. Do you routinely drink sodas?

- GREEN: Never
- YELLOW: Only the diet stuff, and only now and then
- RED: I'm a colaholic

Soda: Sodas are pure sugar. Naked calories that add up quickly contributing to obesity. Sodas are also bad for your bones. Most who drink soda do so at the expense of healthier calcium rich beverages like milk (especially children and teens). Sodas also have a double- whammy in that the phosphorus in many sodas blocks the absorption of any other calcium that is taken in. Most of us don't get enough calcium, and the little we do, is blocked from entering the body where it's needed. Also, the insulin surges that occur from the sugar blast result in higher levels of inflammation in the body (not good for your frame) and higher risk of both obesity and diabetes (neither of which is good for your frame).

20. How much water do you take in a day?

- GREEN: 8 full glasses
- YELLOW: 4 to 6 glasses, usually
- RED: I'm thirsty now

Water: Water is essential for virtually every physiologic process in your body yet most of us go around with our tanks not adequately filled. Athletes and those who exercise regularly are particularly prone to dehydration related issues. So "camel-up". To learn more about the importance of water checkout "Running On Empty".

21. How much do you sleep each night?

- GREEN: 6 to 8 hours
- YELLOW: One hour over or under that span
- RED: A lot more (or a lot less)

Sleep: Too much or too little sleep can be harmful to you. Between 6-8 hours per night of quality sleep (frequent wake-ups and/or snoring don't really count) is ideal. With less you can have issues related to chronic fatigue as well as

problems with agility (both mental and physical), and coordination. Too much increases your risk of heart problems and like too much sedentary behavior can result in muscle and bone loss. Even proper weight control is linked to catching the right amount of ZZZ's.

22. What is your morning resting heart rate (MRHR)? (Note: Your pulse rate can be taken either with a portable heart rate monitor or by checking your pulse at the carotid artery on your neck or on the radial artery at your wrist. Do this before getting out of bed in the morning. Count the amount of beats in a 10-second period and then multiply by 6 for your heart rate. When using the carotid artery at your neck, do not press firmly or massage the area because that type of maneuver results in a cardiac reflex that actually slows your heart rate, resulting in a false reading.)

GREEN: I check my MRHR, especially in times of hard training, and it remains very constant (i.e., within 5 beats per minute—day to day)

YELLOW: I train pretty hard but don't usually check my MRHR, or it's been pretty variable (i.e., up 5 to 10 beats per minute), and I'm kinda whipped

RED: I train very hard but don't check my MRHR, or it's been pretty variable (i.e., up 10 beats per minute). I feel pretty beat, and I'm not making gains

MRHR: It is a good idea to both know and regularly monitor your MRHR especially if you are involved in vigorous exercise or athletic training. MRHR can serve as a fairly sensitive barometer of "overtraining" syndromes with resultant decrease performance and increased injury rates.

23. Have you ever taken steroids, growth hormone, or supplements such as androstenedione and DHEA (dehydroepiandrosterone)?

GREEN: No

YELLOW: Yes, in the past (but not in the past 3 years)

RED: Yes, recent or current use

Steroids: Even if it does allow you to hit more home runs or look better at the beach, anabolic steroids and other illegal performance enhancing substances should not be taken. These are potentially dangerous medications with a myriad of long and short term health consequences—some reversible, some not. There is no safe way to take anabolic steroids, even with medical "supervision". In addition to numerous medical problems (liver, heart, endocrine, skin, psychological) these substances can be damaging to your frame or

musculoskeletal system. Muscles get stronger but tendons weaker – a bad combination in terms of increased incidents of rupture of major muscle/tendon groups (usually requiring major surgery). Also, there can be instances of joint surface damage and collapse related to a condition called avascular (AVN) especially in the hip joint. These compounds are especially dangerous in children whose skeletons are still growing resulting in premature closure of growth plate and stunted growth. In the past, this has been a predominantly male problem (except for some female pro bodybuilders), but recently more and more young girls have turned to steroids for that “beach body” as well as to enhance athletic performance. Sure your “friends” may say they are safe and have “gotten away” with Russian roulette. If you really care about your body, Just Say No. There are no shortcuts to a lifetime of great health and durability.

24. For how many hours at a stretch do you sit at a desk?

- GREEN: Less than 2
- YELLOW: 2 to 4
- RED: More than 4

Sitting: You would think that being sedentary and sitting around doing nothing all day long would prevent your frame from getting into trouble but just the opposite is true. Thomas Cureton, an exercise physiologist was so correct when he said “the human body is the only machine that breaks down when not used”. Sitting places tremendous stress on the lower back and spine and can cause many other joints to “stiffen” up. Also working at computer (especially if not perfectly positioned from an ergonomic standpoint) can wreak havoc on you neck and upper extremities with cumulative trauma disorder such tendonitis, and carpal tunnel syndrome. So make sure your workstation is properly setup and take frequent breaks to stretch and move about. Also, if your job is sedentary you had better find time during the day to get in your daily dose of required exercise.

25. Are your joints hypermobile? (Try the following 3 tests)

- 1. Hyperextend (go beyond straight) your elbows**
- 2. Hyperextend (go beyond straight) your knees**
- 3. Pull your thumb all the way backward to touch your forearm or pull your fingers all the way back so they are at a right angle or beyond to your hand.**

- GREEN: My joints do not hyperextend
- YELLOW: One or more joints slightly hyperextend
- RED: Call me Gumby!

Loose-jointed: Being loose jointed or hypermobile can help you in a variety of sports and activities such as ballet, gymnastics, ice-skating , yoga and martial arts but it also increases your risk of numerous bone and joint injuries such as ligament tears, muscle strains and joint subluxations and dislocations. If you are loose jointed you should spend less time stretching those loose areas and instead focus on strength training to add to better muscle support and control of those vulnerable areas.

26. How often do you work out?

- GREEN: Three times a week, an hour a day
- YELLOW: Maybe once or twice a week
- RED: Let's see, a couple of months ago. . .

Workout: Exercise is a medicine and like any medicine requires an optimal dose. If it is too little or intermittent it will not protect your health and your frame. Too much and it can be damaging resulting in breakdown (more on that later). Also it needs to be a lifetime habit. Medications have a “half –life” which means that over time, the effects of that medication will predictably leave your body. Ditto for exercise. All it takes is a few weeks off the wagon and you begin to lose all the health and musculoskeletal benefits. So stick to it!

27. Does your workout include the following- Balanced aerobic, strengthening, and stretching?

- GREEN: Balanced aerobic, strengthening, and stretching
- YELLOW: A little of this, and a little of that
- RED: Just one thing (running, yoga, swimming, weights)

Balanced workouts: One of the biggest missing elements for most individual's workout regime is balance. The three pillars of a great balanced workout include cardiovascular, strength and flexibility. Most of us favor one or two at the expense of others. No matter what your fitness or health goals are, find a way to regularly include all three critical elements.

28. Do you run to get in shape? Or get in shape to run?

- GREEN: I am in shape, or I'll walk, swim, bike (or other low-impact alternatives) till I'm buffed and ready to run
- YELLOW: I'll run a little to burn extra calories
- RED: Running is the best and only way to lose those pounds

Run: Running is a terrific cardiovascular or aerobic exercise but it can be very strenuous and also create high forces across your skeleton, especially your joints. If you are overweight, the high forces are even magnified. To avoid injury or breakdown, get in shape and shed some unnecessary pounds first and then incorporate running. If you have arthritis in your hips, knees, ankles or feet consider a lower impact alternative. If your lower extremity joints are healthy, it's hard to beat running as an exercise.

29. For a given sport or activity (bicycling, Rollerblading), do you wear the full protective gear suggested?

- GREEN: Yes
- YELLOW: Usually
- RED: No

Gear: So many injuries (including many serious and life threatening ones) are preventable when proper safety gear is used. Yet, far too many children and adults do not use the appropriate safety gear for their sports or activities. You wouldn't see Lance Armstrong without his bike helmet or Terrell Owens without his helmet and pads. Nuff said. To learn more about safety gear and be even more convinced of its importance check "Gear Up".

30. Do you stop an activity when you feel pain?

- GREEN: Always
- YELLOW: Usually
- RED: "No pain, no gain" is my mantra

Pain: Pain is an important warning signs that never should be ignored. "No pain, No Gain" is no longer a sensible mantra and certainly has left a trail of walking wounded. Learning to listen to your body and better understand its language and signals is important in maintaining lifetime durability. With experience you will also learn the difference between "the burn" or other forms of mild discomfort that are safe to work through in exercise and sport, and those ouches that are problematic and of concern.

31. If you're a runner, how many miles do you log in a week?

- GREEN: Less than 25
- YELLOW: 25 to 30

RED: 30+

Miles logged: The likelihood that a runner will sustain an injury (especially overuse related) increases dramatically when the runner's weekly mileage goes over 25-30 miles. This is especially true if there was a sudden increase in the mileage. The body is less able to adapt. The volume of activity/ likelihood of injury equation also holds true for other sports and/or activities. For example, aerobic dance instructors who teach more than 3 classes per week have higher injury rates as do pitchers who throw more than a certain number of pitches a week (that number varies also by the pitcher's age) and so on with many other activities. Obviously we all have a break point and the key is to learn to listen to your body and design workouts that build you up, not break you down.

32. Do you regularly play soccer, rugby, or basketball, or do you powerlift?

- GREEN: No (or maybe just a little)
- YELLOW: Once a week at most
- RED: More than once a week

Sports: Certain sports, if done regularly, are associated with much higher incidence of arthritis (especially knee) down the line. Surprisingly, soccer and powerlifting are worse for your knees (in the long run) than football (unless of course you've had that one major "blowout" injury- which does tend to happen more often in football). Contrary to popular belief, running does not seem to cause wear and tear arthritis in the knees. If however you do already have knee arthritis, running and other high impact activities will accelerate the arthritic wear.

33a. Have you had to see a doctor in the past 3 years for any bone, joint, or spine problems?

- GREEN: No
- YELLOW: One or two visits, no problems now
- RED: Do doctors give frequent-flier miles?

33b. Have you ever had an orthopaedic injury severe enough to result in one of the following?

Kept you out of sports or exercise for a month?

Required crutches for 2 or more weeks?

Required surgery?

- GREEN: No
- RED: Yes

Injuries: Prior orthopaedic (bone and joint) problems are often predictive of future ones. Even if you have fully “recovered” and are without current symptoms, there may be some underlying weakness or damage that could rear its head in the future. This is especially true if you have had multiple or recurrent problems, more serious injuries or surgery i.e. orthopaedic. You probably have “weak links” or points of vulnerability in your frame. Seek them out and try to toughen them or if necessary learn to safely work around. In the FrameWork book, an entire section is devoted to exercise programs that deal with the top 20 Orthopaedic (bone and joint) ailments and their workout fix. By smartly adjusting your workout, you can usually continue your path to lifelong fitness.

34. Have you ever dislocated or separated your shoulder?

GREEN: No

RED: Yes

Shoulder: The shoulder is a complex joint and many injuries (even old ones) leave it vulnerable. Shoulder dislocations and even partial dislocations (subluxation) are often recurrent and can result in problems with the labrum (cartilage type stabilizing rim within the shoulder socket), rotator cuff, and surrounding nerves. Shoulder separations (“AC joint” injury) can result in painful arthritis and/or rotator cuff problems.

35. Do you have joint swelling?

GREEN: No

RED: Yes

Swelling: Joint swelling is never normal and always should be evaluated. It can be related to injury or arthritis as well as more systemic medical problems including infection.

36a. Have you lost mobility (range of motion) in any joint? For example, can you fully straighten (extend) and fully bend (flex)? Compare right to left.

GREEN: No

YELLOW: A little stiff at times but motion is full

RED: Motion is limited in one or two major joints or spine

36b. Do you have stiffness in any joints for any of the following? Upon awakening (i.e., until showering or moving about 15–20 minutes)? After sitting still more than 30 minutes? For no apparent reason?

- GREEN: No
- YELLOW: Only the day after a hard workout
- RED: Yes

ROM/Stiffness: Every joint in your body has a normal range of motion (ROM) which is usually symmetric and equal right to left. Even your spine (neck and low back) and jaw have a normal range of what should be available. Joints are measured in flexion (bending), extension (straightening) and some have rotation. Motion loss is never normal and may be due to arthritis, injury, surgery, scar tissue or other less common problems. A feeling of tightness or stiffness can be an early sign of problems such as arthritis. If a joint is not moving right, get it checked.

37. Do your knees creak or make noise going up or down stairs?

- GREEN: No
- YELLOW: Yes, but no discomfort or pain
- RED: Yes, and does cause discomfort and/or pain

Noisy joints: Many individuals experience sounds from their joints. Sometimes tendons will go snap, crackle, pop and some will experience a crunching or grinding sensation especially around patella or kneecap on stairs. It is never a bad idea to get noisy joints checked. Kneecap noise is usually due to some arthritis type wear or softening on the joint surface but not always. If there are absolutely no symptoms, then things can just be monitored but if it hurts or limits you, make an appointment with a sports medicine specialist.

38. Do you have trouble actually ascending or descending stairs?

- GREEN: No
- YELLOW: Only after going up and down multiple times, especially while carrying heavier items
- RED: Yes, and does cause discomfort and/or pain

Stairs: Difficulty going up or down stairs can be related to joint problems like arthritis or issues with leg weakness especially the important quadriceps muscle on the front of your thigh. As we age, muscle loss occurs and it usually is gradual and unnoticed. Problems with stairs, or getting out of a deep chair may be the

first indication. No matter what the underlying reason, this is an important issue that should be evaluated. In many instances, simple strengthening exercises will greatly improve your function.

39. Does high barometric pressure (i.e., damp, rainy weather) make your joints ache?

- GREEN: No
- YELLOW: Rarely
- RED: Friends consult me instead of the weatherman

Barometer: Your joints are mini-barometers. This is especially true if you have arthritis, synovitis (irritated joint lining) or inflammation in a given joint. It (the joint) then can sense changes in barometric pressure. So, it is not an old wife's tale that some individuals can predict whether (especially high barometric conditions like rain). If you don't need the weatherman because of bum knee or other joint, get it checked.

40. Have you ever had an episode of lower back or neck pain or spasm?

- GREEN: No
- YELLOW: It kept me off my feet for less than 24 hours
- RED: I miss work due to recurrent episodes

Low Back Pain: An epidemic in our country, low back pain sidelines 80% of the population at some point in their lives. The #1 predictor of low back problems is previous low back episode. It tends to be recurrent. Getting over the episode (which most of us do pretty easily) is not enough. Take it as a warning shot to learn more about your lower back and get into a preventive low back program that focuses on preventive exercises, weight control and things like proper posture (including sitting) and lifting technique.

41a. Do you have pain while lying on either shoulder at night in bed?

- GREEN: No
- YELLOW: Rarely
- RED: Almost nightly, tossing and turning to get comfy

41b. Do you have difficulty falling asleep at night or awaken during the night because of any joint or muscle discomfort?

- GREEN: No
- YELLOW: Rarely or minor difficulty
- RED: Yes

41c. Do you awaken at night with your hands or fingers “asleep”?

- GREEN: No
- YELLOW: Rarely or I easily shake it off
- RED: My hand gets more sleep than I do

Night Pain: Nighttime can be uncomfortable for those with a variety of musculoskeletal ailments. Pain or discomfort alone is an issue but the secondary problem is disruption of important sleep cycles necessary for repair and renewal of your body. For reasons that are not entirely clear, problem muscles, bones and joints can hurt more at night. This may be due to circadian rhythms affecting certain hormones or perhaps the day-to-day distractions (which block pain signals as you go about your daily routines), are gone. All is quiet, and the pain signals are front and center, amplified. This phenomenon is common with arthritis. Shoulders are different. Individuals with rotator cuff problems don't tolerate lying on the involved side. Possibly due to pressure related circulatory issues (micro-circulation) within the shoulder's rotator cuff itself. Hands that go numb in the night can be from nerve problems like carpal tunnel or cubital tunnel syndrome. Nighttime is not always great for individuals with low back and neck problems, fibromyalgia and “restless leg syndrome”. Sleep should be a time of comfort and rest. If it is not, talk to your doctor. Also consider a different mattress.

42. Is one leg longer than the other?

- GREEN: Yes, they are level
- YELLOW: Less than 1 centimeter off
- RED: More than 1 centimeter off

Leg Lengths: If one leg is shorter or longer than the other you may be more prone to orthopaedic issues involving the lower back, hip, knee, lower leg, ankle and foot. This is especially true if you are involved in high performance, lower body predominant activities like running and cycling. The difference in leg length may come from actual differences in the length of the legs themselves or from spinal issues like scoliosis (curvature) or sacroiliac (SI) dysfunction. Sometimes it's a combination. Old fractures of the hip, femur or tibia can result in a longer or shorter leg as can surgeries like hip replacement. A removable heel lift will usually correct things when needed. Many of us have a slight leg length discrepancy that is well tolerated and does not need any treatment.

43. Are your foot arches too high or too low?

- GREEN: Normal arch
- YELLOW: Slightly high or low
- RED: Very high or very low

Arch: Very few of us have golden arches. Arches can be high or low. A low arch or flat foot is pronated (pronation) and a high arch or cavus foot is supinated (supination). Your arch is an important part of the shock absorption system for your lower body, pelvis and spine. Both high arches and low arches can get you into trouble with a variety of orthopedic conditions especially in the foot, ankle and knee. A high arch foot is actually a worse shock absorber than a low pronated foot. Heel pain and spurs, planter fasciitis, Achilles and/or ankle tendonitis and stress fractures all can occur. Proper shoe and/or sneaker selection is essential and shoe inserts are often helpful. These can be inexpensive “over the counter” or more expensive custom fitted orthotics.

44. Ankle Mobility- Have you lost some motion or mobility in your ankles?

- GREEN: Yes
- YELLOW: Very close, possible slight difference
- RED: One goes farther forward or one can drop lower without the heel coming off the floor

Ankle ROM: Loss of even a little ankle mobility can throw off your entire gait leading to other problems. Motion loss can follow a simple sprain or can be related to more serious conditions like arthritis. If you’ve had ankle sprains, fractures, or have ankle pain, check for motion loss. Often you can re-gain lost motion with some simple exercises or physical therapy.

45. How’s your Knee and Leg Alignment.

Stand barefoot, facing a mirror and put your legs together. Look in the mirror. For most of us, our knees will touch slightly, and there may be an inch between your ankles. (A doctor can check this with a standing x-ray of your knee to confirm.) If your knees are touching and your ankles are inches apart, you have a Valgus alignment, you’re knock-kneed. If your ankles are together and your knees are apart, you have Varus alignment, or you’re bowlegged.

- GREEN: Legs line up pretty straight
- YELLOW: Ankles together and 1 inch between knees or knees together

and up to 2 inches between feet

() RED: Ankles together and more than 1 inch between knees
or knees together and more than 2 inches between feet

Knee/Leg Alignment: Few of us have perfectly straight legs. Most of us are slightly knocked-knee (valgus) although there are many bow-legged (varus) individuals. A little of either is not bad but the more you have, the more likely you are to wear your knee joint out unevenly and develop arthritis on the inner (medial) or outer (lateral) side of your knee. It's like a car with a wheel alignment problem, the tires wear prematurely and unevenly. If you are very knocked-knee you are 7 x's more likely to develop arthritis, and if you are very bow-legged, you are 5x's more likely to develop arthritis than someone with normal alignment. Much of it is genetics although knee injuries themselves can create these deformities.

46. How's your Kneecap Alignment.

Stand facing a mirror, feet together, pointing straight ahead. Are your kneecaps pointing inward, outward, or straight ahead? Place a dot in the center of the kneecap to help you visualize the path of the kneecap, then picture water squirting straight out from the dots. Is it shooting forward, parallel in the general direction of the feet and toes, or way off inward with the water streams crossing or outward away from your body?

() GREEN: Straight ahead

() YELLOW: Slightly in or out but still aiming in the same direction as your feet

() RED: Aiming way outward or inward

Kneecap Alignment. Your patellofemoral joint (where the kneecap or patella glides over the end of the femur bone in the trochlea groove) is not an inherently stable joint like a deep ball and socket i.e. hip joint. It tends to slip and slide in the groove especially in some individuals with "malalignment". The rotation of your hip, shape of your leg and looseness of the joint itself are all factors. Those with kneecap alignment issues are more likely to have patellar pain syndrome (sometimes called chondromalacia) and even problems with patellar subluxation and dislocation as well as patellofemoral arthritis. There are excellent exercises and rehab programs that help with these conditions.

47. The Stork (Basic Balance).

Stand up straight, extend your arms out wide to your sides, then raise one foot off the ground, up to the level of the opposite knee. Rest the arch of

your foot on the inner side of your knee, forming the letter “P.” Now close your eyes. How long can you stay balanced that way?

- GREEN: 30 seconds
- YELLOW: 15 to 30 seconds
- RED: Less than 15 seconds

The Stork: Balance is so important to maintain a healthy frame. It not only prevents injuries and falls but also improves sports performance. Balance can always be improved with a little work. Some great activities to build super balance and coordination include martial arts, Tai Chi, Qi Gong, ballet and yoga.

48. Can you hold “The Horse”? And how long?

With knees splayed out like you are on a very large horse or small hippo, go into a partial squat (knees bent not quite to 90 degrees). Look straight ahead. If you are unable to do the Horse, try doing the Wall Seat (the easier version until the Horse is possible for you).

- GREEN: Can hold for 30 seconds, then rise easily
- YELLOW: Can get down fine, but getting up is hard and/or hold 30 seconds but legs are shakin’
- RED: Call Jet Li (cause no can do)

The Horse: A basic martial arts position that is a cornerstone for so many other movements. It builds your important quadriceps muscle (front thigh) and can also be used as a position for meditation. I once had a martial arts instructor who would meditate in the horse position, and could spend an entire hour holding that position!

49. How’s your Lower-Leg Strength (Hop Test)?

Hop on each foot, 20 times right and 20 times left. Note: You should have equal spring with pretty quiet landings. A weak leg would go thud, or your form will begin to deteriorate.

- GREEN: You can go 20 times without weakening
- YELLOW: After 10, your pace becomes a problem or it’s uncomfortable
- RED: No can do or there’s a difference between the right and left sides

Hopping: The ability to hop repetitively and evenly (right to left) requires both calf strength and endurance which is often lost after an injury or if you have been sedentary and out of shape. Sometimes one side is deficient and on the hop test

or hopping drills you don't have your natural spring, and as a result you land with more of a thud on one side.

50a. Quadriceps (Front Thigh)

Sit on the floor with your legs extended forward and your muscles relaxed. Use a pen to make a mark on the front of your thigh, 4 inches above the upper or proximal edge of your kneecap. Mark the same exact spot on the other leg, measuring again from the top of the kneecap. Next, measure the circumference of each thigh at that exact level. As you are measuring, gently straighten the leg, while it remains on the ground, tightening the thigh muscle. While measuring, do not pull the tape or string tightly to compress the thigh muscle but just pull it gently to get the exact circumference. Compare the measurements of your legs.

- GREEN: Equal
- YELLOW: Less than 1/2-inch difference
- RED: 1 inch or more difference

50b. Calf Muscle

Sit in a chair and cross your legs. Measure the circumference of your calf at its largest area while relaxed. Repeat for the opposite side.

- GREEN: Equal
- YELLOW: Less than 1/4-inch difference
- RED: 3/4 inch or more difference

Muscle Atrophy: Muscle atrophy can occur pretty rapidly after an injury or surgery especially if there is a period of immobilization (i.e. cast, knee immobilizer, sling). If you have been limping for a week or two you can usually already measure atrophy especially in your quadriceps (thigh muscle). Ditto if you've had knee surgery, even arthroscopic. Certain nerve related conditions and even low back problems can result in muscle weakness and muscle loss. Also if you have been sedentary or inactive, especially over the age of 40, you can lose muscle very rapidly. Use it or lose it! The good news is that with strength or resistance training (or rehabilitation when needed) it comes back. Muscle is built much easier when you were younger but it's never too late. Researchers have shown that even 90-year-old previously sedentary, frail, nursing home residents can rebuild muscle and improve their function with a simple weight training program.

51. Calf Raises- How Many?

Stand on one foot with your toes on the first lowest step of a stairway or on a big, stable book. Let your heel drop down so that the heel is lower than

the toes by approximately 1 inch at the start of each repetition. Do not “spring” up. Rather, do slow controlled lifts, both up and down. How many calf raises can you do with your left leg, then with your right leg?

- GREEN: 20 or more
- YELLOW: 10–20
- RED: Fewer than 10

Calf Muscles/raise. Your calf muscle is also prone to atrophy and weakness after injury, immobilization or with certain neurologic or low back problems. (See prior muscle atrophy discussion).

52. Forearm Flexibility/Tightness

Extend your arms directly in front of you, elbows straight, and hands up like a traffic officer saying “stop.” You should be able to make your hands perfectly vertical, your wrists making a 90-degree right angle without any discomfort or strain. Now try the same thing palms down. Again, your wrists should be able to make a 90-degree angle. Can you make a 90-degree angle?

- GREEN: Yes
- RED: No

Forearm Flexibility: Forearms can tighten for many reasons and make you more likely to develop tennis elbow (outer side of elbow-lateral epicondylitis) and golfer’s elbow (inner side of elbow-medial epicondylitis) even if you play neither sport. Regular computer and keyboard use (especially if your workstation is not adjusted properly) are also culprits. Stretch your forearms regularly if you play tennis, golf, work at a computer, or do repetitive activities (like being a checkout cashier) with your arms and hands.

53a. Neck Rotation (Cervical Spine)

Stand sideways to a mirror and look at yourself over your shoulder. Can you turn a full 90 degrees so that your nose is in line with your shoulder?

- GREEN: Yes
- YELLOW: Very, very close
- RED: No

53b. Neck Flexion (Cervical Spine)

Look straight ahead; now slowly look downward and try to touch your chin to your breast bone. Can you do it?

- GREEN: Chin touches breastbone easily
- YELLOW: Chin is one fingerwidth away from breastbone
- RED: No way

53c. Neck Extension (Cervical Spine)

Looking in a mirror, touch your forefinger to the tip of your nose and hold it in that exact spot. Then tilt your head back slowly, looking toward the ceiling, to see if you can get your entire chin above the level of your fingertip. Do not lean back; only your head should be moving. Can you do it?

- GREEN: Yes
- YELLOW: Almost there (i.e., fingertip reaches chin level)
- RED: No way

Neck/C-Spine Motion: Neck motion loss can occur from and injury but is more commonly seen with age-related wear and tear that we all get. Sometimes motion loss goes unnoticed because your body compensates.

54. Tight Calves?

Sit on the very edge of a firm wooden chair. With your bare foot flat on the ground, slide your foot back toward the chair slowly, keeping your heel on the floor as long as possible. Looking down, see how far back toward the lead edge of the chair the back of your heel can slide before your heel lifts off the floor. How far back can it go?

- GREEN: Within 1 inch of the lead edge of the chair
- YELLOW: 2–4 inches
- RED: 5 inches or more

Calf Tightness: Calf tightness is extremely common and is a predisposing factor in a variety of musculoskeletal ailments including heel pain, heel spurs and plantar fasciitis. A tight calf is more prone to Achilles problems such as Achilles tendonitis and even Achilles tendon tear/ rupture and calf muscle strains (“tennis leg”). Tight calves can also predispose to ankle sprains. Women who wear high heels are particular susceptible as are runners and individuals involved with ballet and dance. Stretching regularly prevents most calf related problems.

55. Tight Hips?

Lie on a stable tabletop with your knees and lower legs hanging over the end. Bring both of your knees up until they are clutched to your chest in a

“cannonball” position. Now, while one leg remains snug in that position, slowly lower the other. You should be able to place this other knee back fully flat on the table with your leg once again dangling over the side without your other hip coming down or your pelvis rocking forward. If it “hangs up,” your hip is too tight. Repeat with alternate leg. How does it go?

- GREEN: Legs go back down fully, easily
- YELLOW: Legs go back down fully, but feels tight in front
- RED: Leg or legs do not go down fully (i.e., hangs up)

Hip Tightness: Hip tightness can occur in runners, cyclists, and those who sit at a desk most of the day. Hip tightness may also be a sign of hip joint arthritis. Stretching and range of motion (ROM) exercises can help especially in terms of prevention of problems.

56a. Core Strength and Flexibility

Lie down on that same table or on the floor, then tilt your pelvis so that you flatten your back as much as you can while drawing in and tightening your abdominal area. Now, with your legs perfectly straight, slowly raise your heels off the table, then keep going as far as you can without discomfort, ideally until you reach 90 degrees to the hip (feet straight up). How far can you slowly, and in a controlled manner, bring your legs down toward the floor (while keeping them perfectly straight) before you have to arch your back (i.e., no longer able to keep your lower back flattened against the ground)?

- GREEN: Easy up and all the way back down in good form
- YELLOW: Get 75 to 80 percent down in good form then back area tilts, or it’s difficult but able to do without discomfort or back arching
- RED: Can’t perform test because of discomfort or lower back tilts early on the way down

56b. Core Strength and Endurance (Quadriped):

While kneeling on the floor, place your hands flat on the ground as if you were to do a modified pushup. Next, assume the “Chinese pushup” position with your body straight and your full weight supported on both forearms and your toes. Your body should be straight as a board with your pelvis tucked inward, tightening your abdominal and buttock muscles. Try holding that position with your weight on your forearms and toes for 60 seconds. Next, lift your right arm off the ground for 15 seconds, supporting your full weight on your left arm and both feet. Next, return your right forearm back to the ground and raise your left arm for 15 seconds,

maintaining proper form. Next, return your left forearm to the ground and raise your right leg for 15 seconds, then return it to the ground and repeat with your left leg. Next, try to elevate your right arm and left leg simultaneously and hold for 15 seconds, then return them back to the ground and try to lift your left arm and right leg simultaneously for 15 seconds. Return to your starting “Chinese pushup” position and hold for an additional 30 seconds. How did you do?

- GREEN: Able to do all positions for the required time
- YELLOW: Able to do all positions for half of the required time
- RED: Unable to hold all or any positions except briefly

Core: Your core is that center of your body that connects your upper body/chest are to the lower body. It is the center of your fitness universe but is all too often neglected. It is critically important for not only your FrameWork and optimal musculoskeletal health but is also a key component of athletic performance, especially at higher levels. It is made up of your abdominal area (front and sides), your lower back musculature (especially those important extensor muscles) and your pelvic area muscles. Core training had been the missing link in fitness for a long time but is now fortunately becoming more mainstream. Step 3 of the FrameWork Program is devoted to building a core. Other great activities to improve your core include martial arts, Pilates and yoga.

57a. Hamstring (Back of Thigh) Tightness

Sit on the floor, in the Figure 4 position, left knee straight out with your foot pointing upward and your ankle at a 90-degree angle. Sit tall (as if a string were pulling the top of your head toward the ceiling) and reach forward (like a walking zombie), with your index fingers touching side by side. While staying tall, keeping your chest high, slowly lean forward, keeping your left knee straight, and try to touch the wall (at the level of your eyes, i.e., don't reach down toward toes, but stay tall with good sitting posture). How did you do?

- GREEN: Can place both palms flat on the wall
- YELLOW: Can reach wall only with your fingertips
- RED: Can't reach the wall

57b. Alternate Hamstring Tightness Test:

If you have really long arms (and you know who you are), then you might be able to reach the wall even if you have tight hamstrings. Double check with this alternative test. Lie on your back with your legs out straight. Gently flex the hip of one leg, bringing the knee up toward you until the hip is at 90 degrees with your knee still bent. Keeping the hip at 90 degrees

(don't let it drop back down), slowly straighten your knee fully until the leg is out straight and the heel is pointing toward the ceiling. This test is easier to visualize if you lie sideways to a mirror so you can watch your positioning. How did you do?

- GREEN: Leg goes up beyond "L" position with no strain
- YELLOW: Knee gets almost fully straight but feels tight
- RED: Knee is too tight to fully straighten leg

57c. Quadriceps Tightness

Lie on your stomach with your legs extended, knees close together. Keep your knees touching, don't let them drift apart. Then bend your left leg at the knee (or have a friend gently help), bringing your left foot up toward your buttock. Your left heel should be able to touch your buttock while you remain absolutely flat against the floor. If your quadriceps are too tight, either your heel won't reach your buttock, or you'll have to tilt your pelvis or buttocks area off the floor to accommodate. How did you do?

- GREEN: Heel reaches buttock easily
- YELLOW: Can do, but feeling of tightness in front of the thigh
- RED: Heel can't reach buttock or pelvis tilts (lifts up)

57d. Shoulder Reach

Reach behind your back with one hand coming over your shoulder, with the other hand reaching up from behind the small of your back. (Try it on both sides.) What can you do?

- GREEN: Clasp my hands
- YELLOW: Touch my fingertips
- RED: Are you joking?

57e. Shoulder ("Statue of Liberty")

Lie on your back on the floor, with your arms relaxed at your sides. Raise one arm up and over your head with the elbow straight until it comes back down in a full arc toward the floor, like you're doing the backstroke, only with your palm up toward the ceiling in the "Statue of Liberty" position). Repeat with the alternate arm. What can you do?

- GREEN: Shoulder, elbow, wrist all touch the floor
- YELLOW: Wrist is 2 inches or less off the floor
- RED: Wrist "hangs up" more than 2 inches off the floor

57f. Back Rotation

Lie on your back on the floor with your arms full extended out to your sides, palms down. Press your hands against the floor, bring your right knee up and rotate it over your left leg. Without your right elbow, wrist, and shoulder coming off the floor, can you make the right knee do the following? Try both sides.

- GREEN: Touch the floor
- YELLOW: Come within 2 inches
- RED: Not get within 2 inches

57g. Iliotibial Band (Outer Thigh) Test

Lie on your left side with your legs straight. Now flex your right knee and grab your right foot, bringing your right heel toward your butt. Keeping the rest of your body straight (i.e., your spine, pelvis, and left leg), pull your foot, letting your right knee go back 2 to 3 inches and then allow your right knee to drop back and down behind your left knee, touching the floor.

What does your knee do? Try both sides

- GREEN: Knee easily drops back and down to the floor
- YELLOW: Knee drops down but is 2 to 3 inches from the floor
- RED: Knee hangs up and does not drop much

Muscle Tightness: Stretching is the most neglected area in the majority of workouts and many muscle groups pay the price. Some individuals are just more tight jointed, with tight muscle groups, than others. Certain sports and fitness activities predispose to muscle tightness. Runners typically have tight hamstrings, shoulders, low backs and calves. Cyclist, volleyball and basketball players get tight quads. Weightlifting, done properly, does not cause muscle tightness-so much for that myth. Most of us, especially as we age develop tightness in 4 major areas: the front of the shoulder; lower back; hamstrings; and calves. Muscle tightness not only diminishes athletic performance but also predisposes you to muscle pulls and certain injuries. For example:

Hamstring tightness _ patellar pain, low back pain

Quad tightness _ Jumper's Knee (tendonitis)

Calf tightness _ Heel pain, Achilles tendonitis and tears

Regular stretching pays off in many ways. Better yet, take up yoga.

58a. Upper Body Strength—Pushups

Men should do the standard “military style” pushup with only the hands and the toes (not knees) touching the floor. Women have the additional option of using the kneeling or “bent knee” position. (kneel on the floor,

hands forward on the floor, keep your back straight). Do as many pushups as possible, without stopping until you can no longer do any in good form. Keep your back straight and let your chest touch the ground on the way down, no bouncing. Count the total number of pushups performed.

- GREEN: >25 (men); >18 (women)
- YELLOW: 12–25 (men); 7–18 (women)
- RED: <12 (men); <7 (women)

58b. Abdominal Strength Crunch-Ups

Lie on the floor with your knees bent, feet flat on the floor, arms crossed on your chest. Pull in and tighten your stomach, push your back flat, and raise high enough for your upper back to slowly come off of the floor. Don't pull with your neck or head and keep your lower back on the floor. How many crunch-ups can you do?

- GREEN: >40
- YELLOW: 25 to 40
- RED: <25

Push-Ups/Crunches: Push-ups and crunches are a great calisthenics you can do almost anywhere and are great for building upper body and core strength and endurance. There are many variations to keep things interesting and challenge you body in different ways. Always use good form and strive to add a few more each workout.

Push-Ups are a great overall indicator of upper body strength and endurance. Crunches are one important indicator of abdominal and core strength. Abdominal weakness is linked to many orthopaedic problems including low back pain. Also core strength is critical for optimal athletic performance and injury prevention.

59a. Standing Posture.

The final item on our self-test is an overall evaluation of how you carry your body—or how your body carries you—and how you present yourself to the world. Get down to a leotard or your underwear and have your partner snap a picture of you from the side standing. (Digital cameras make this sort of thing easy. It is best if the photo is taken when you least expect it, in you natural posture, both standing and sitting.) Then place a ruler over the photograph and draw a line from the back of your ear to your heel. Ideally, the line should bisect your shoulder, pass through your hip, and graze the back of your leg at the knee. How does the picture look?

- GREEN: Straight as a soldier
- YELLOW: A little stooped

RED: Playing a hunch

59b. Sitting Posture.

Now, take a photo sitting. How does it look and how does it compare with your usual posture?

GREEN: I sit with good posture most of the day

YELLOW: I slouch only when tired

RED: I'm a slouch most of the time

Posture: For most of us, excluding Marines and Navy Seals, good posture does not come easy. It's a habit we need to work at but can be a challenge because daily activities (i.e. sitting at a desk, driving in car, watching TV, etc) tend to create poor posture. Improperly designed workouts that lack balance can have the same negative effect on your posture. As your posture worsens, bodily movement becomes less efficient and you are more prone to fatigue and stress. Tight misaligned muscles are also more prone to chronic strain especially in the neck and lower back area. Good posture is important not only when you are standing, but also equally important when sitting and even lying in bed. The FrameWork Program will improve your posture.

With this information about yourself, you should be better prepared to minimize, or even prevent, the wear and tear that wears you down.

Find your WEAK LINKS...

IF YOU CHOSE YELLOW OR RED ON:	GIVE EXTRA ATTENTION TO YOUR:
1, 8, 40	Mindset/Attitude/Stress Control (Step 7)
4, 10, 11, 21, 23, 24, 29, 30, 32	Lifestyle choices
4, 8, 21, 22, 41	Rest and Recovery (Step 5)
9, 12, 14, 15, 16, 18, 19, 20, 28, 37	Nutrition, Hydration & Supplements
9, 22, 40	Cardiovascular (Step 2)
25, 34, 38, 40, 48, 49, 50, 51, 58, 59	Strength Training (Step 4)
24, 36, 40, 44, 52, 53, 54, 55, 57, 59	Flexibility / Stretching (Step 4)
40, 47, 56, 58, 59	Core Work & Balance (Step 3)
22, 26, 27, 28, 31, 32	Training Program (in general)
5, 6, 17, 30, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 53	Get an evaluation*
2, 3, 7, 33	Overall prevention (all 7 Steps)

*see a sports medicine or other specialist especially if there are ongoing symptoms