

CANYON PHYSICAL THERAPY AND AQUATIC REHABILITATION

Newsletter

How To: Proper Squat Technique

If you want to pick something up off the ground, you have two options: hinge at the hips or squat down. There's no question that the full squat is an essential, primal movement, and yet many folks in modern, industrialized society are unable to perform one. Kids have good squat form (just watch them at play), but their parents are stiff at the hips with rounded backs and tight knee joints. Many more have been taught – by health experts and personal trainers – that the full squat is dangerous, that it will destroy your knees with wear and tear and render you incapable of normal activity. They say a half-squat is perfectly adequate, or, better yet, get rid of the squat altogether. Disregard these “experts.” **You need to squat.** You don't need to use a ton of weight (or any at all), but you do need to be mobile and flexible enough to reach a full squat below parallel.

Full squat – dangerous? Tell that to the elderly folks in Southeast Asia comfortably resting on their haunches with ease. Tell that to modern hunter-gatherers who use the full squat as their default resting position. Tell that to professional power-lifters squatting under heavy weight for dozens of years. The problem is not with the movement; it's with our lack of flexibility and mobility. In order to be truly fit, it's important that we relearn how to perform a proper, full squat.

How to Do the Basic Squat

- Stand with a comfortable stance. Most will prefer their feet slightly wider than shoulder width apart with toes turned out at a slight angle.
- Lower yourself by reaching back with your butt while maintaining a strong lower back. Keep your knees aligned with your toes and your toes on the ground.
- Chest up, upper back tight, eyes looking forward and slightly down, head in a neutral position. Maintain a nice cohesive line along your spine.
- Go just below parallel, so that your butt drops below your knees.
- Come back up by pushing through the heel.

Things to Remember

- Don't let your knees bow inward, or risk potential injury. Think of actively shoving your knees outward on the descent so that they track over your toes.
- To visualize driving through the heel, try lifting your toes off the ground the first few reps.

Read more: <http://www.marksdailyapple.com/how-to-proper-squat-technique>

Staff Spotlight

Israel Albarran PT, DPT is from Chula Vista California where he graduated from High School and went on to pursue a career in the Army as a medic. Upon completion of eight years in service he decided to obtain higher education and graduated with honors from Southwestern Community College with an Associates degree in transfer studies. He then went on to San Diego State University where he majored in kinesiology with emphasis on pre-physical therapy, and in May 2005 he graduated Cum Laude with a Bachelor of Science Degree. Israel then worked as a physical

therapy technician for a small out patient private practice for five months before being accepted to Elon University Doctor of

Physical Therapy program in North Carolina. Israel graduated with his Doctoral Degree in Physical Therapy in December of 2008, and received his Arizona Physical Therapy Licensure shortly after. He moved to Prescott where he started working at a local outpatient clinic for about a year and a half before moving to Prescott Valley and joining the Canyon Physical Therapy and Aquatic Rehabilitation Team in January of 2011. Israel enjoys motorcycling, cross-fit, mountain biking and competes in local mountain bike events. His favorite trails are homestead trail 305 at Lynx Lake and Granite Basin trails.



Strength Training for Life

You don't need to be an Olympic champion to protect muscle mass and build strength. The American College of Sports Medicine (ACSM) offer these guidelines for beginners:

1. Work each major muscle group—chest, shoulders, arms, back, abdomen, and legs. Goal: 2 or 3 40 minute sessions per week.
2. Select 1 or 2 exercises per muscle group. To improve strength, do 8 to 12 repetitions for each exercise against a resistance that's hard for you to repeat 10 times. Perform 2-4 sets of each exercise per workout.
3. Allow 36 hours before you exercise the muscle group again.
4. It's best for older persons and previously sedentary adults to start with light intensity.— when it's hard for you to repeat the exercise 15 times against the resistance.

As you gain strength, you can increase the amount

of resistance as your ability to repeat the exercise increases to 15 times. For best results consider investing in a few sessions with a certified coach or personal trainer.

The Canyon Wellness Program is happy to announce it is now offering the REALFIT Strength & Conditioning Program. REALFIT is intended to introduce or reintroduce Wellness participants to land based resistance training through use of free-weights and machines. REALFIT is also intended to increase participants overall knowledge of how and why strength training contributes to their ability to maintain an independent healthy lifestyle. Participants will learn the safe execution of resistance exercises through hands on training with a coach. REALFIT classes are every Wednesday in the gym, starting at noon. We hope to see you there.

Vitamin D3: The Next Big Vitamin

The majority of people in the general population are *deficient* in Vitamin D. Treating this deficiency can help prevent stress fractures as well as maintain a healthy vitality. Overcoming this deficiency may also improve reaction time, muscle strength, speed, and endurance, and well... that's a very nice side effect of getting adequate Vitamin D.

Vitamin D: Why Should You Care?

1) Longevity

The number of diseases associated with vitamin D deficiency is growing. And who's deficient? Most people. In one study, researchers found that total mortality was 26% higher in those with the lowest levels compared with the highest. That means quite simply this: vitamin D supplementation prolongs life.

Here are just a handful of examples:

- Vitamin D may protect against both Type I and Type II diabetes.
- Low D may contribute to chronic fatigue, depression, and Seasonal Affective Disorder.
- Parkinson's and Alzheimer's sufferers have been found to have lower levels of D.
- Low levels of vitamin D may contribute to "Syndrome X" with associated hypertension, obesity, diabetes, and heart disease.
- Administration of dietary vitamin D has been shown to lower blood pressure and restore insulin sensitivity.

2) Performance

Vitamin D has been shown to act directly on muscle to increase protein synthesis. Deficient subjects administered Vitamin D showed improvement in muscle protein anabolism and an increase in muscle mass. Improvements in neuromuscular functioning have also been seen. People with higher levels of Vitamin D generally have better reaction time and balance.

3) Looking Good

New research shows that adding Vitamin D to a reduced-calorie diet may lead to better, faster weight loss. Not only does excess body fat come off faster when plenty of D3 is present, but it also comes off the abdominal area. The icing on the cake? Most people can *retain muscle mass* while losing the fat. Other findings include loss of sugar cravings, and a normalization in blood sugar levels.

Let's review some Vitamin D basics and some little known facts, there is no RDA for Vitamin D due to "insufficient evidence." But there is an Adequate Intake recommendation of 200 IU - 400 IU. These are bare minimums that new evidence suggests are way too conservative. There aren't that many foods in nature containing Vitamin D. Most people get their D through sunlight. The basic intake guidelines are: 5-30 minutes of sun exposure between 10 AM and 3 PM at least twice a week without sunscreen. But much depends on where you live, the pollution levels, cloud cover, age, the season of the year, your natural cutaneous melanin content, etc.

How Much Vitamin D?

Those more in-the-know suggest anywhere from 1000 to even 5000 IU per day.

General Recommendations

- 1) When looking for a Vitamin D supplement, choose the D3 form. Gel caps are probably best. Since D is fat soluble, take with foods containing a little fat to optimize absorption. Polyunsaturated and monounsaturated fatty acids are best.
- 2) Get some sun when you can, but don't burn.
- 3) It's wise to ensure adequate calcium intake when increasing your intake of Vitamin D.

Article by: Chris Shugart

MAY/JUNE

**CANYON PHYSICAL
THERAPY AND AQUATIC
REHABILITATION**

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Hours

Monday, Wednesday, Friday - 7am-6pm
Tuesday, Thursday - 8am-7pm
Saturday - 8am-5pm

**If you are interested in receiving our bi-monthly
newsletter electronically
please e-mail us at info@canyonpt.com**

**SCHEDULE OF
EVENTS**

- May 5th—Cinco de Mayo
- May 12th—Mother's Day
- May 18th—Armed Forces
Day
- May 25th - Closed
- May 27th—Memorial Day
Closed
- June 14th— Flag Day
- June 16th—Father's Day
- June 21st—Summer Solstice

CPTAR SERVICES

Canyon provides the best equipment and treatment technologies available to allow optimal and complete patient care. We provide both land-based and aquatic environments for rehabilitation. Our saltwater pool allows our patients to enter rehabilitation earlier and allows them an accelerated return to their prior level of function. This environment is optimal for post surgical patients of all types, including those patients who are losing the battle with gravity and may benefit from a more forgiving environment to regain function. Our patients also utilize our land-based gym with state of the art strength training and cardiovascular equipment. This assists us in treating a wide variety of conditions including, but not limited to, orthopedic injuries, post-surgical, back and neck, geriatric, sports and auto injuries, workers' compensation, work hardening, balance and fall risk, foot and ankle injuries, Fibromyalgia and acute vertigo (BPPV).

