Your Qs: Deep Squats, Carbs and More

Jen Sinkler, our fitness editor, wrangles leading experts to address your most perplexing workout quandaries and conundrums. Email 'em to askjen@ experiencelife.com.

By Jen Sinkler / March 2011

Deep Squats

Q1: Am I supposed to go below parallel on a squat, or is that too hard on my knees? I've heard both.

A: This is one of the most frequently asked questions in the gym, and the simple answer is: Go low. Research clearly shows that properly executed deep squats — where the hips dip below the knees — do not increase knee ligament laxity or instability and can actually increase muscle recruitment. The hamstrings, inner thighs, lower back, glutes and small stabilizer muscles surrounding the knees become more involved, and using more muscles can ultimately lead to increased performance, says Kelli Calabrese, MS, master trainer for Adventure Boot Camp in Orange County, Calif.

That's the simple answer. But you also have to ask yourself how low you can go *while maintaining perfect form*, because form always trumps depth. (Form trumps everything. Seriously.) Ask a personal trainer to offer a critique: If your knees or ankles cave inward or you lose the natural curve of your lumbar spine at any point, you need to address those issues (flexibility, strength, alignment) before you add more depth. When a squat is done properly, the knees track directly over the pinky toes, the spine stays neutral, and the hamstrings, lower back and adductors (inner thighs) stay engaged throughout the full range of motion.

So, strive to go deeper, but start gradually and exercise common sense, says Calabrese. Don't do anything that's painful or that will aggravate a pre-existing condition.

Carbs and Endurance Athletes

Q2: I like the idea of cutting refined foods — like flours and sugars — from my diet, but as a triathlete, I'm wondering how I could get enough carbohydrates (I currently get mine from pasta and energy gels) to sustain my training?

A: Fantastic question, and one that's getting asked more and more often as people get wise to the negative health ramifications of a diet heavy in processed carbs (e.g., blood-sugar spikes and crashes, increased risks of diabetes, heart disease, cancer, stroke, and infertility). Some of the best whole-food carb sources include yams, sweet potatoes, red potatoes, wild rice and bananas. That said, many endurance athletes overemphasize their need for carbohydrates, says Tom Nikkola, nutrition program manager at Life Time Fitness in Chanhassen, Minn. Carbs are only part of the fuel endurance athletes use; they also burn significant amounts of fat. And it's possible to teach your body to burn even *more* fat, both from adipose tissue and dietary sources (by shifting your diet to include more healthy fats and fewer carbs). Medium-chain fatty acids like those found in coconut oil (preferably unrefined) function eerily like carbohydrates when it comes to fueling fitness endeavors. And using more fat as fuel means you can get by without large, daily carb doses.

Take note: You may feel sluggish for a couple of months while your body adjusts. And once it does, you may still need more carbs than your average fitness enthusiast. Also keep in mind that what works best for you may not be the same as what works for your training partner or favorite athlete. Do some experimenting and consider seeking the counsel of a sports nutritionist who can help you make a clean transition to more whole food.

A Bigger Rear End? But Yes!

Q3: My rear end just sort of sits there. How can I get a bigger, rounder, standout butt?

A: In his 1992 hit, “Baby Got Back,” Sir Mix-A-Lot vented, “I’m tired of magazines sayin’ flat butts are the thing.” It was a prescient call. Today we’re all aboard that caboose. Strong, round butts are the thing, to the point that Kelly Ripa even championed Booty Pop underwear on national television last year. And you, too, can have a bubble butt — without padding the truth.

The glutes are muscles just like any other in your body, and they’ll respond to resistance training by taking shape. The thing people tend to do wrong is not using enough resistance to force the glutes to grow, says Nick Nilsson, personal trainer and author of the e-book *Gluteus to the Maximus: Build a Bigger Butt Now!* The glutes are big, strong muscles that thrive on heavy training involving maximum stretching and contracting. Note: Deep squats activate the glutes twice as much as partial squats.

With this in mind, Nilsson put together the following — ahem — well-rounded routine. Perform three sets of each exercise, doing six to 10 reps per set, per leg. Adjust resistance so you’re close to failure in that rep range. Repeat two or three times per week.

One-Legged Bench Squats: Stand on one foot on a bench next to something solid to hold on to. Push your hips backward and lower yourself into a deep one-legged squat. Push through your heel and return to standing. Add weight by holding a dumbbell or wearing a weight vest.

Two-Bench Split Squats: Set up two benches parallel to one other, about 2 feet apart. Standing on one, step forward and place your other foot on the bench in front of you. Holding a dumbbell in each hand, lower yourself into a split squat, your back knee dropping below the level of the two benches.

Goblet Side Lunges: Hold a dumbbell vertically at chest level with both hands cupping the top end. Take a wide step out to one side, push your hips backward and lower your body into a side lunge. Push through your heel to return to standing.

Fitness Fixes: Back-Pain Cures

Banishing Back Pain by By Matt Fitzgerald

Desperate to conquer back pain? It may take reawakening your local lumbar stabilizers.

Roughly 80 to 90 percent of Americans will suffer a lower-back injury at some point. Not only are these injuries painful and debilitating, but they can cause the muscles responsible for stabilizing the lower spine — known as local lumbar stabilizers, or inner core — to switch off. This can result in a cascade of muscle imbalances throughout the body, reduced mobility and increased risk of future injuries.

“If one side of the lower back is unstable, the other side locks down, creating a compressive pathology that pushes on the nerves in that area and causes pain,” says Micheal Clark, DPT, CEO of the National Academy of Sports Medicine. That tells the brain to deactivate the affected muscles. As a result, they atrophy, and other muscles, such as the psoas (which functions both as a lumbar stabilizer and hip flexor), are forced to take on the entire job of protecting the lower back. Clark likens the situation to trying to drive with the parking brake on.

Research shows that the local lumbar stabilizers remain shut down unless their connection to the brain is reestablished. So how do you do that? By isometrically contracting the targeted muscles while simultaneously performing small movements with other muscles, Clark says. This helps reawaken the connection, reminding tuned-out postural muscles how to do their thing. Perform 10 to 12 reps of these exercises once a day, four or five times a week, and you should regain control of these muscles in just a few days, bringing them back to full strength in just a few weeks.

Transversus Abdominis Crunch

• Lie face up on the floor with your knees bent and feet flat on the floor.

• Find your neutral spine position by rotating your pelvis as far forward and then as far back as possible, then “lock” your spine in a comfortable position halfway in between. This activates your transversus abdominis, nature’s weightbelt.

• Resting your arms at your sides, take a deep breath.

• As you exhale, extend both arms directly overhead, keeping your abs tight.

• Lift your head and shoulder blades off the floor a couple of inches. Pause for one or two seconds here.

• Relax, then repeat the movement until you can’t maintain a neutral spine.

Multifidus Stabilization

• Lie face up on the floor with your right leg extended on the floor and left leg bent, foot flat on the floor and arms at your sides.

• Lock your lumbar spine into the neutral position as described above and tighten your glutes.

• Raise your right foot 12 inches above the floor, keeping your knee straight, and hold for three seconds. This activates the multifidi muscles, which fill the grooves along the spine.

• Relax and repeat 10 times per leg.