

Meet Your Muscles

Pectoralis Major

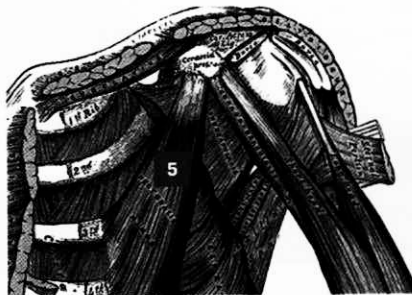
Your main chest muscle is the pectoralis major [1]. Its job: to pull your upper arms toward the middle of your body. Think about that in terms of a bench press. As you push the bar away from your torso, your upper arms move closer to your chest as they straighten. This is because your pectoralis major attaches to the inside of your upper arm bone. So when your pectorals contract, the muscle fibers shorten, pulling your upper arms toward the muscles' origin, your mid-chest.

This is why exercises such as pushups and bench presses are the best way to make your pecs pop. By holding a weight in your hands when you do a bench press, for instance, you increase the weight of your upper arms, which forces your pectoral muscles to contract harder. The end result: a bigger, stronger chest.

The sternal portion of the muscle is collectively considered to be your lower chest.

The muscle fibers that make up the clavicular portion form what many call the upper chest.

The fibers of your pectoralis major originate at three places on your chest: your collar bone [2], your breast bone [3], and your ribs [4], just below your breast bone.



Pectoralis Minor

The pectoralis minor [5] is a thin, triangular muscle that lies beneath your pectoralis major. It starts at your third, fourth, and fifth ribs, and attaches near your shoulder joint. Although this muscle is technically a "chest muscle," its main duty is to assist in pulling your shoulders forward—an action that occurs in back exercises such as the dumbbell pullover.

Meet Your Muscles

Rear Deltoid

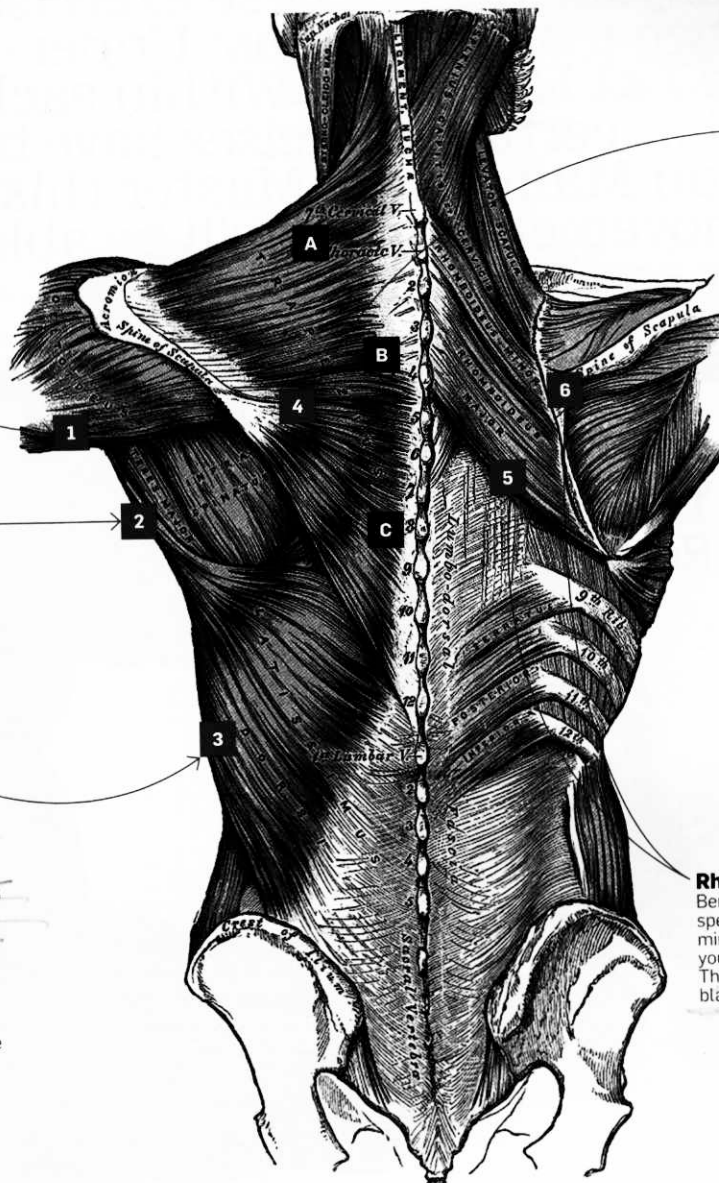
While your rear deltoid [1] is typically thought of as a shoulder muscle (and you'll learn more about it in Chapter 6), it's actually emphasized by many of the exercises that work your upper back. That's because its job is to pull your upper arm backward, a movement that you perform whenever you do a rowing exercise.

Teres Major

The teres major [2] starts on the outer edge of your shoulder blade, or scapula, and—like your lats—attaches to the inside of your upper arm. So it assists your lats in pulling your upper arm down to the side of your torso.

Latissimus Dorsi

Your latissimus dorsi [3] originates on the lower half of your back, along your spine and hip, and attaches to the inside of your upper arm. The primary job of your two lats is to pull your upper arms from a raised position down to the sides of your torso, as when you grab an object off a high shelf. That's why exercises that require this movement, such as chinups, pullups, lat pulldowns, and pullovers, are such popular back builders.



Trapezius

Your trapezius [4] is a long, triangle-shaped muscle located on the upper half of your back. Because of the way its muscle fibers are arranged, your traps have several jobs.

The upper portion of your traps [A] are responsible for lifting your shoulder blades. This allows you to shrug your shoulders. It's worth noting that the best movements for working these fibers—lateral raises, and shrugs—are classified as shoulder exercises and are found in Chapter 6.

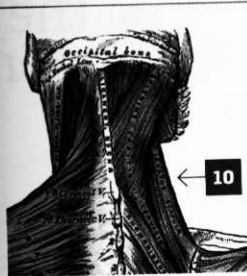
The middle portion of your traps [B], with fibers running perpendicular to your spine, are responsible for pulling your shoulder blades closer together, toward the middle of your back. Rowing exercises emphasize these muscle fibers.

The lower portion of your traps [C], with fibers ascending to your shoulder blades, pull your shoulder blades down. Rowing movements work these fibers as well.

Rhomboids

Beneath your trapezius lie your rhomboids, specifically the rhomboid major [5] and rhomboid minor. [6] These are small muscles that start at your spine and attach to your shoulder blades. They assist your traps with pulling your shoulder blades together.

Meet Your Muscles



Levator Scapula

Most guys would consider the levator scapula [10] to be a neck muscle. And indeed, this ropelike muscle runs down the back of your neck and attaches to the inside edge of your shoulder blade. However, it works with your upper trapezius to help shrug your shoulder, which is why you can strengthen it with the barbell and dumbbell shrugs.



Deltoid

The roundish-looking muscle that caps the top of your upper arm is called your deltoid, and it's the shoulder muscle you're showing off when you wear a sleeveless shirt. It's made up of three distinct sections: your front deltoid [1], middle deltoid [2], and rear deltoid [3]. The best exercises for your front and middle delts are shoulder presses and shoulder raises. However, the top moves for working your rear deltoid are actually found in Chapter 5. That's because the same exercises that train the muscles of your middle and upper back are also the ones that work your rear delts.



Serratus Anterior

Your serratus anterior [9] starts next to the outer edge of your pectorals, on the surface of your upper eight ribs. It wraps around your rib cage until it connects to the undersurface of your shoulder blade, along the inner edge. This muscle's job is to help stabilize and rotate your shoulder blade. You can make it stronger with the serratus shrug and the serratus chair shrug.



Rotator Cuff

Your rotator cuff muscles are a network of four muscles that attach your shoulder blade to your shoulder joint. They are the supraspinatus [5], the infraspinatus [6], the teres minor [7], and the subscapularis [8]. While these muscles are activated in just about every upper-body exercise—they contract to help stabilize your shoulder joint—they also need to be worked directly with shoulder rotation exercises.



Upper Trapezius

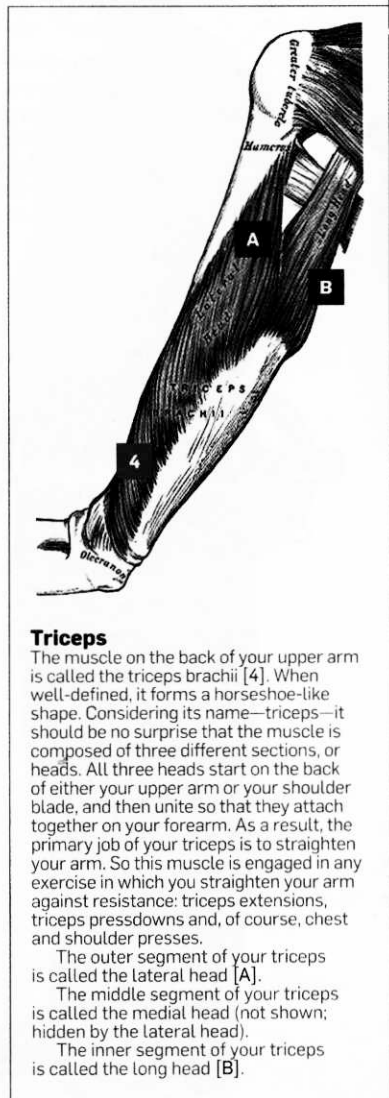
Although the trapezius as a whole is categorized as a back muscle, the upper portions of your traps [4] are best developed with exercises such as the lateral raise and the shoulder shrug, both of which are featured in this chapter.

MUSCLE MISTAKE

Your Shoulders Hurt, but You Lift Anyway

Think of it this way: When your car gets a flat tire, you don't risk driving on it, since that could permanently damage the rims. It's the same way with your shoulders. But just avoiding the offending exercise isn't good enough. After all, a flat tire doesn't fix itself if you simply park the car in your garage. You need to take action. If you notice recurring shoulder pain, see an orthopedist or a physical therapist.

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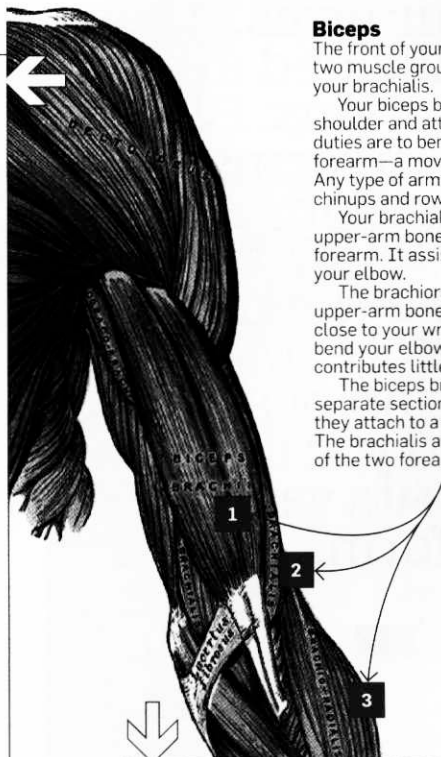
Triceps

The muscle on the back of your upper arm is called the triceps brachii [4]. When well-defined, it forms a horseshoe-like shape. Considering its name—triceps—it should be no surprise that the muscle is composed of three different sections, or heads. All three heads start on the back of either your upper arm or your shoulder blade, and then unite so that they attach together on your forearm. As a result, the primary job of your triceps is to straighten your arm. So this muscle is engaged in any exercise in which you straighten your arm against resistance: triceps extensions, triceps pressdowns and, of course, chest and shoulder presses.

The outer segment of your triceps is called the lateral head [A].

The middle segment of your triceps is called the medial head (not shown; hidden by the lateral head).

The inner segment of your triceps is called the long head [B].



Biceps

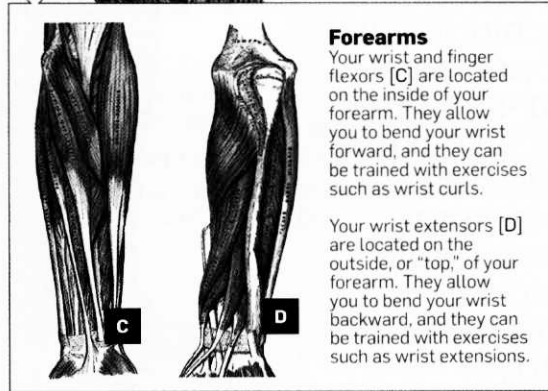
The front of your upper arm owes its bulge to two muscle groups: your biceps brachii and your brachialis.

Your biceps brachii [1] originates at your shoulder and attaches to your forearm. Its duties are to bend your elbow and to rotate your forearm—a movement known as supination. Any type of arm curl works this muscle, as do chinups and rows.

Your brachialis [2] starts in the middle of your upper-arm bone and also attaches to your forearm. It assists your biceps brachii in bending your elbow.

The brachioradialis [3] originates on your upper-arm bone, near your elbow, and attaches close to your wrist. So it helps your biceps brachii bend your elbow and rotate your forearm, but it contributes little to the size of your biceps.

The biceps brachii is composed of two separate sections, or heads, that unite just before they attach to a forearm bone called the radius. The brachialis attaches to your ulna, the longer of the two forearm bones.



Forearms

Your wrist and finger flexors [C] are located on the inside of your forearm. They allow you to bend your wrist forward, and they can be trained with exercises such as wrist curls.

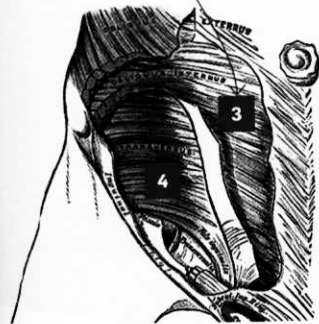
Your wrist extensors [D] are located on the outside, or "top," of your forearm. They allow you to bend your wrist backward, and they can be trained with exercises such as wrist extensions.

Meet Your Muscles

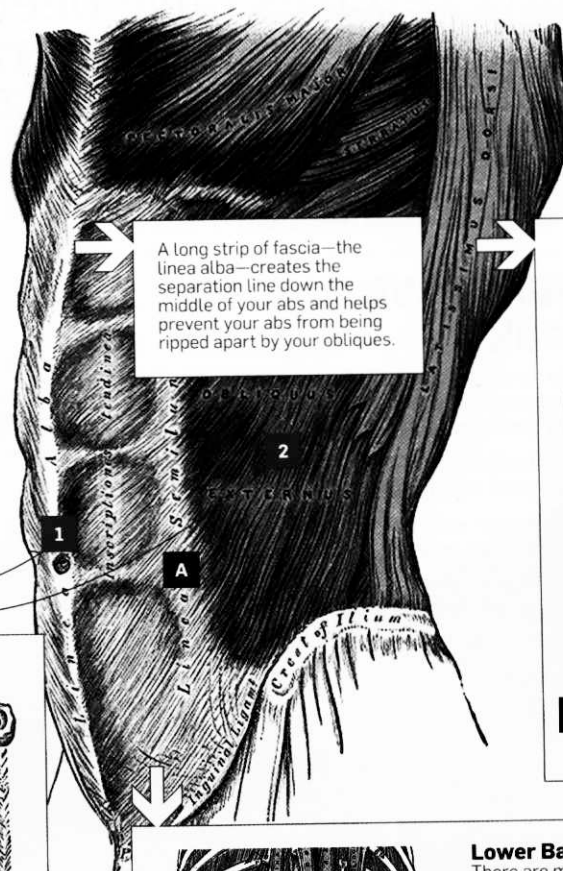
Abdominals

There's no doubt that the most popular abs muscle is the rectus abdominis [1], also known as the six-pack. Despite its nickname, this muscle actually consists of eight segments that are separated by a dense connective tissue called fascia [A]. This muscle is one of those that counteract the pull of the muscles that extend your lower back, helping to keep your spine stable. Its other main duty is to pull your torso toward your hips. That's why you can work this muscle by doing situps and crunches. However, the best way to train your rectus abdominis—and your core as a whole—is with spinal stability exercises, such as the plank and side plank.

The abs muscles on the sides of your torso are the external obliques [2] and internal obliques [3]. These muscles help bend your torso to your side, help rotate your torso to your left and right, and perhaps most important, actually act to resist your torso from rotating. So rotational exercises such as the kneeling rotational chop train these muscles, as do antirotational exercises like the kneeling stability chop.



Your deepest abdominal muscle is the transverse abdominis [4]. This muscle lies beneath your rectus abdominis and obliques, and its job is to pull your abdominal wall inward—as when you're sucking in your gut.



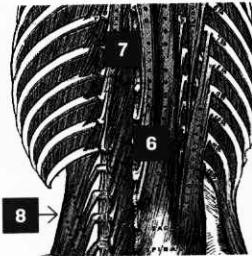
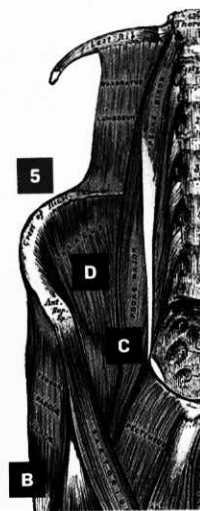
A long strip of fascia—the linea alba—creates the separation line down the middle of your abs and helps prevent your abs from being ripped apart by your obliques.

YOUR CORE, DEFINED

While it's common to use the words *core* and *abs* interchangeably, it's not entirely accurate. That's because the term *core* actually describes the more than two dozen abdominal, lower-back, and hip muscles that stabilize your spine to keep your torso upright. What's more, your core muscles allow you to bend your torso forward, back, and from side to side, as well as rotate. As a result, your core is critical in everything you do—except, perhaps, sleeping.

Hips

A group of muscles on the fronts of your hips, known as your hip flexors [5], also play a valuable role in core strength. The reason: They originate on either your spine or pelvis, an area that you might call the ground floor of your core. A number of muscles qualify as hip flexors, but the main ones are the tensor fascia latae [B], psoas [C], and iliacus [D]. As the name suggests, these muscles allow you flex your hips. To visualize, imagine raising your upper legs toward your chest. You can target these muscles with exercises such as the reverse crunch and the hanging leg raise.



Lower Back

There are many lower-back muscles that contribute to your core strength, but for simplicity's sake, the main ones are your erector spinae (shown as sacrospinalis) [6], multifidus [7], and quadratus lumborum [8]. Collectively, these muscles help keep your spine stable and also allow it to bend backward and to the side. They're best trained with stability exercises such as the plank, side plank, and the prone cobra, and also with any exercise that requires you to bend or pull.

What's more, even though your gluteus maximus is technically a hip muscle—and was covered in depth in Chapter 9—it's also worth mentioning here. That's because it's attached to your lower back by connective tissue and, therefore, works in conjunction with your other core muscles.