

My neck hurts when I do crunches!

A few months ago we talked about the importance of efficient posture. I'd like to break it down now to even more specificity – neck posture and alignment in exercise. I often have folks tell me that they can't do sit ups or crunches, or overhead lifts due to neck pain and strain. Maintaining proper alignment, and training/strengthening your neck in this alignment, can be helpful during workouts and in daily life.

We often talk about the "core" in relationship to our back, but our neck has a core too. It is made up of several muscles – the most commonly known one being the Longus colli: one of a group of 4 deep neck flexors. The deep neck flexors do flex, or bend forward, your neck. However, they also work in conjunction with the deep segmental muscles in the back of your neck to maintain alignment and stability. These muscles play an important role in postural function. Gravity, the weight of our head, and our sitting-society posture tends to put us into a head forward, head tilted up posture. Our neck "core" helps to counteract these forces and helps to hold our head in a more neutral position.

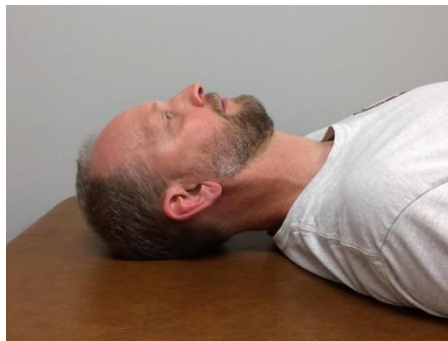
Weakness and decreased endurance of the deep flexors has been found in about 70% of people with chronic neck pain, is commonly a result of whiplash injury, and is often implicated in cervicogenic (arising from the neck) headaches.

Research has shown that training and strengthening the deep cervical flexors can help improve posture in the neck, as well as to increase function and reduce pain.

The basis of neck strengthening involves learning to place and maintain your neck in neutral alignment while exercising, by adding a small chin tuck we focus on strengthening the deep neck flexors. Often strain and discomfort comes from trying to substitute with the more superficial neck muscles. These muscles don't have the ability to hold your head up all day for you – it isn't their job.

Let's start by looking at correct head alignment in preparing for a crunch, sit up, roll up, or any head lifting exercise:

First: place your neck in a "neutral" position – not too tilted up or down. If you have a rounded upper back, your neck may tilt way back when you lie down and you may be unable to get into this position. In this case, place a small pillow or support under your neck to help you get to neutral.



Second: Perform a small chin tuck or head nod. Think of moving your skull on your neck only, it is about a 10 degree nod. Make sure you keep your jaw relaxed.



Then as you lift your head you want to keep this chin tuck. Look between your legs or at your belly button as you lift your head; not toward the ceiling and not to your chest. Your head follows where your eyes are looking and eye movement helps to contract your stabilizing muscles. So preset this movement by looking where your head will be going. It is also very important to keep your shoulders relaxed – away from your ears, and dropped down onto your rib cage. Keep your chest open as you lift up- not rounding forward thru shoulders. This shoulder position provides shoulder girdle stability which helps the neck maintain its proper position.

CORRECT



INCORRECT



You can also work on your neck while doing planks, side planks, push-ups or any standing/sitting weight lifting activity. The concept is still to keep your neck in neutral alignment with a small chin tuck.

CORRECT



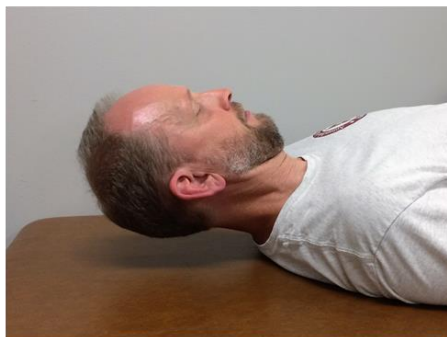
INCORRECT



Below are several other options to work on strengthening your neck:

The goal is to build your endurance – try holding for 5-10 seconds to start with and perform 2-3 sets. Then work your way up to 30 second holds for 2-4 sets.

“Perform a chin tuck, lift your head 1-2” and hold”



“Slide your body off a bench, table or physioball”



“Slide your body off a bench, table or
physioball”



“Perform a chin tuck, lift your head 1-2”
and hold”



Amira Ranney, PT