

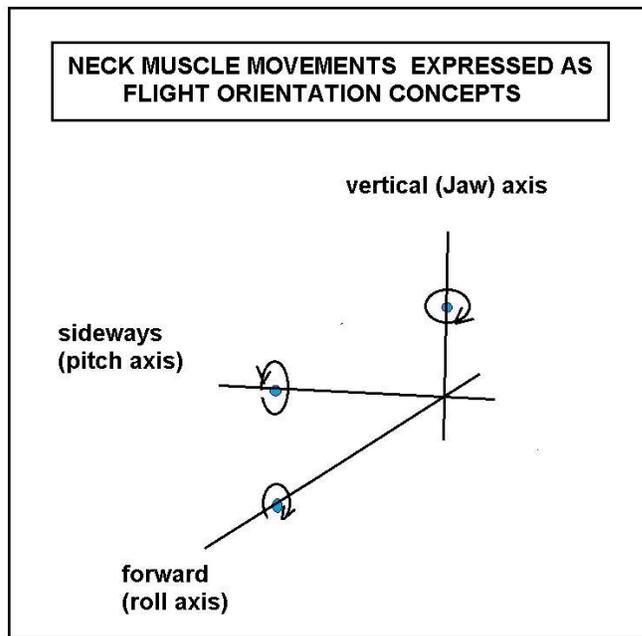
EXERCISES FOR NECK PAINS , DIZZINESS, TENSION HEADACHES, AND CRACKING PRODUCED BY POOR POSTURE RELATIVE TO ONE’S COMPUTER SCREEN

INTRODUCTION:

Over the last few decades chiropractors have noticed large increases in neck pains, tension headaches, neck spasms , dizziness, and craking reported by their patients. The most common characteristic of these patients is that they are spending more and more time in front of computer screens both at home and at work. It is believed that most of the above mentioned medical problems are due to poor computer posture putting unneeded strain on their neck muscles. I notice such behavior every day as I walk down any hallway in our department. My colleagues almost to a man are hunched over their computer screens often with an orientation which puts unnecessary strain on their neck muscles without them noticing anything until one or more of the above mentioned symptoms appear. We want in this note to briefly discuss how these problems arise and what exercises one can undertake to reduce or completely eliminate them.

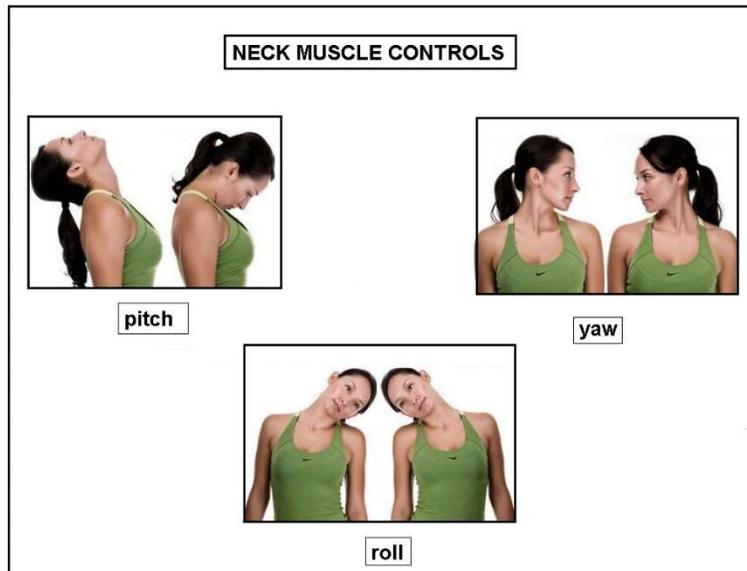
MOVEMENT ORIENTATIONS:

Looking at the neck from an engineering viewpoint, one has enough neck muscles so that three basic orientations of the head relative to the body can be achieved. Taking notations from flight mechanics we have the three orientations of pitch, yaw, and roll as shown-



The roll axis is perpendicular to the face with roll produced by moving an ear toward a shoulder and repeating things with the other ear toward the other shoulder. Pitch is achieved by moving the chin down and then up. Finally yaw produces head movement to the right and then to the left. A clearer picture of

these three orthogonal movements capable of being produced by the neck muscles follow using a model as shown-



I can usually tell which movements are the most taxed by listening for cracking noises. In my case my neck muscles will usually make a maximum cracking noise when undergoing a roll motion. Repeated roll motions will reduce the cracking and they will disappear completely after long enough exercise. At the moment I feel fine having no pitch and yaw motion cracking and just a weak cracking when performing roll movements. This is unlike loud cracking I had several days ago which was producing troubled sleep.

NECK EXERCISES:

Pitch Control-Sitting or standing lower your chin until it hits your chest. Hold for ten seconds and then reverse things by tilting your head backwards and hold for ten second. Repeat several times.,

Yaw Control-Rotate your head to the right by about 60 degrees and hold for ten seconds. Reverse things by rotating head some 60 degrees to the left and hold for ten second. Repeat the procedure several times.

Roll Control-Move your left ear down to almost your shoulder. Hold for ten seconds. Next reverse things and place your right ear as close as possible to your right shoulder and hold for ten seconds. Repeat the procedure.

Doing these three exercises several times an hour will strengthen the appropriate neck muscles so that most common neck trouble symptoms will disappear. One can also do combination of these exercises choosing those motions producing the most cracking. In

addition to these exercises there are additional ones involving arm swings and rotations. We where taught many of these back in elementary school gym.

CONCLUDING REMARKS:

Using the above exercises I have been able to avoid many neck problems keeping in mind that not only that one should one place one's eyes horizontal at the same level as ones computer screen but also take ten minute or so breaks per hour away from staring at a computer screen all day. In addition one should also consider one's sleeping posture. My tendency to sleep facing sideways puts extra strain on one's roll orientation. There are available special pillows which can prevent roll problems for side sleepers. Just always remember that sitting in front of a computer screen many hours a day is like balancing an eleven pound melon on top of one's body by a total of some twenty tiny neck muscles and seven spine neck vertebrae . Poor orientations of such an eleven pound weight can easily cause muscle spasms and tension headaches. When I was younger I would often get tension headaches but not any more since I keep a careful eye on my head orientations in order to avoid overtaxing the neck muscles.

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