

# Medical-Legal Report

## Trauma Series #35

### LOW SPEED REAR END COLLISIONS - INJURED NECK MUSCLES

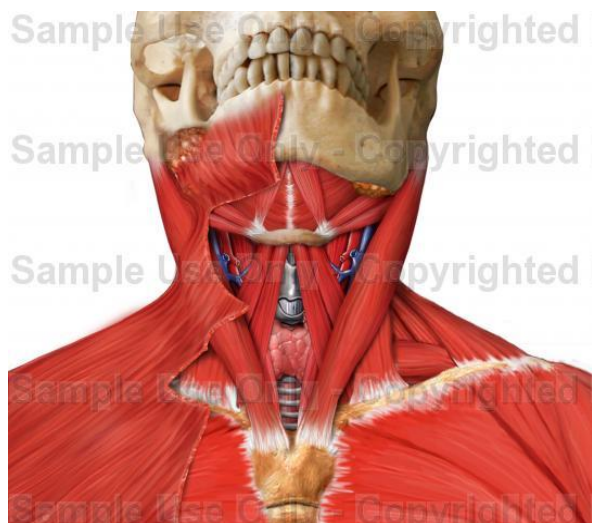


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A study was conducted at low velocity (8km/hr) to determine whether the forces on the muscles in the front and back of the neck would exceed published thresholds for muscle injury, and contribute to the injury of capsular ligaments. Vasavada et al. (2007) found that the muscle injury rate calculated for the neck muscles during whiplash exposures exceeded those which have been found previously to cause injury. The seat used for the study was equipped with a head restraint that positioned less than 10cm from the back of the head. Therefore, the response of these subjects represents a small segment of the motoring public with proper head

restraint protection. As a result of the rates of injury reported in this study, it shows that there may be a gross underestimate of the magnitude of whiplash victims in low velocity accidents.

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