

**Wheels:** A letter from Emmett says, “I have a problem with a rough ride in my 1999 Chevy Lumina. It feels like it needs a balance job on the front tires. The alignment seems to be okay. I first noticed the problem shortly before I replaced my front tires. Since all four tires had over 65,000 miles with good tread, I decided to replace only the front tires with Goodyear Eagles, P225-60R16, and had them balanced and aligned. After a trial run on the interstate, I returned for a re-balance, re-alignment, and another trial run with the same results. When I returned, the serviceman said I should probably replace the rear tires also, which I did. After balancing and alignment and rotation of the tires, I took another trial run with the same outcome. Before I go back to the tire company, do you have any suggestions as to what my problem is? Thank you.”

**Halderman:** Because the problem occurred before the new tires were replaced, this would make me conclude that the problem is related to the suspension instead of the tires. A bent wheel could be the cause. A minor bump against a curb is enough to cause the wheel to wobble (move in and out slightly as it rotates). A runout gauge can be used to check for both lateral (in and out), as well as radial (out-of-round) of the wheels. The maximum allowable runout is generally less than 0.060 inch or the thickness of a nickel. Another possible cause includes a defective wheel bearing.

