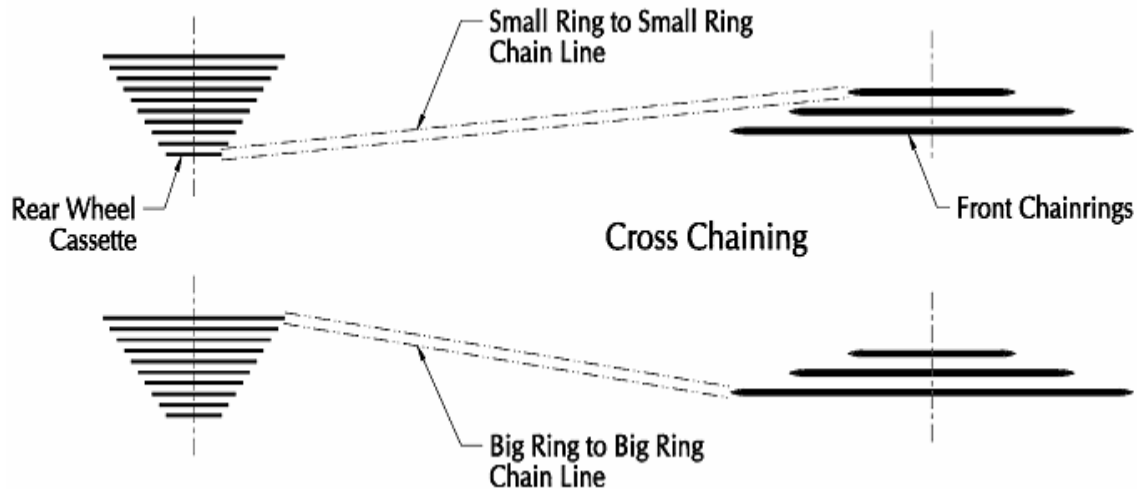


TIP on Cross-chaining:

I have written on how to shift gears. Now I want to tell you how not to shift gears. Do not shift to create cross-chaining. This occurs when you get your gear shifters into 1L on the left shifter (low gear on the front chainrings) and 7R or 8R on the right shifter (high gear on the rear cassette). This is shown in the top diagram below. Alternatively, this can occur when you get your shifters into 3L on the left (high gear) and 1R on the right (low gear) - (see the bottom diagram below.)



(In this diagram the low gear sprocket numbers 1L and 1R are at the top and the high gear sprocket numbers 3R and 8L are at the bottom. So when you are in the first gear you are in the smallest chainring at the front and the largest cog wheel at the back so the chain is running in a straight line. If this does not make sense to you, don't be concerned. Just pay attention to the numbers on your shifters.)

This is not good. As you can see the chain is not running in a near-straight line as it should. In this situation, your chain can bind and bring you to a dead stop. If you force forward movement, you can break your chain. Alternatively, if the chain does not break it will likely bind so you will not be able to turn your pedals. A crossed-chain can be so tight it can be a brute to undo so avoid getting into this situation.