

## Gear Restriction Information for Junior, U-17, U-15 and U-13 Racers

The Union Cycliste Internationale (UCI, governing body for bicycle racing worldwide) has set limits on the highest gear ratio that is legal for Junior riders and the Canadian Cycling Association has set limits for U-13, U-15, U-17 riders. These limits are in place to prevent young riders from pushing hard gears and encourages them to "spin" rather than "grind". This is good for skill development and protects young riders from damaging their developing joints. Please be advised that we will be enforcing the gear ratio limits for all Junior, U-17, U-15 and U-13 riders at the Provincial Championships in Riverport on 20 June, and at all BNS races thereafter.

The limits are defined as the distance that the bike can travel for one revolution of the pedals. These limits are as follows:

Junior (17 - 19 years old): 7.93 metres

Under 17 (15 - 16 years old): 6.94 m

Under 15 (13 - 14 years old): 6.00 m

Under 13 (10 - 12 years old): 5.60 m

To test whether or not your bike complies with this rule you can do a rollout test.

1. Measure and mark the allowed distance for your age category on the ground.
2. Shift your chain onto the big chainring (front) and the smallest cog in the cassette (back).
3. Line your bike up at the start of your measured distance so that the right pedal is at the bottom of the revolution, directly above the start line, and the bike is facing backwards.
4. Lift the front wheel off the ground and push the bike (backwards) in a straight line until the right pedal is again at the bottom of the revolution. You should have gone no further than your marked distance.

If your bike traveled further than the allowed distance in one pedal revolution you will have to lock out one or more cogs in your cassette. You can figure this out by trial and error with repeated rollout tests, or you can refer to this handy spreadsheet designed by Cycling Australia. You'll just need to measure the diameter of your wheel and enter the distance limit for your age group.

[http://www.cycling.org.au/site/cycling/national/downloads/Content/NavigationMenu/SportDevelopment/Coaching/Gear\\_Chart/Rolloutmm.xls](http://www.cycling.org.au/site/cycling/national/downloads/Content/NavigationMenu/SportDevelopment/Coaching/Gear_Chart/Rolloutmm.xls)

The friendly mechanics at your local bike shop can help you lock out your cogs, or you can learn how to do this yourself. It's easy and just requires a phillips screw driver. Here's a website with a clear explanation and pictures:

<http://www.sheldonbrown.com/derailer-adjustment.html>

(look for the explanation under "limit stop screws" and "high gear limit stop")

Happy Riding!

Your BNS Road Commissaires

5 June 2010