

# Junior Gearing Information Update 23/08/2012

## Regulation Changes relevant to U15, U17 and U19 Road and Track Cycling from October 1, 2012

### Summary of Changes

- The maximum gear development (roll out) permitted for the U17 category has been increased to 7.0 metres. This applies to both Road and Track cycling disciplines at all levels of domestic competition.
- 'Blocking off' of gears will not be permitted in any event at Junior U15, U17 and U19 National Road Championships.

### Background and Rationale

Gear development is the distance that a bicycle travels during one revolution of the crank. Restrictions are placed on maximum gear development in the junior categories to achieve a number of outcomes including:

- To ensure a fair and equal competitive basis for all involved
- To limit the competitive advantage of athletes who mature early
- To increase the relative importance and thereby development of racing tactics
- To encourage development of technique and ability to produce power at high cadence
- To reduce the risk of overuse injuries

In practice, gear development restrictions are achieved by requiring junior competitors to have a chainring, cog/cassette and tyre combination that, in the highest gear, ensures the gear development is equal to or less than the maximum permitted for the athlete's particular age category. A commissaire will supervise a 'roll out' procedure before and after a race to verify that each athlete's bicycle has the correct development. Thus gear development in cycling is also called 'roll out distance' or simply 'roll out'. 'Blocking off' of gears refers to adjustment of the gear shift mechanisms to prevent use of cogs and/or chainrings on the bicycle which, if used, would exceed the permitted roll out.

In 2011, a summary of junior gearing regulation changes was published. In response to this publication feedback was received from the Cycling Australia (CA) membership which raised concerns over cost and availability of equipment to comply with the proposed regulations. In response, a committee of coaching and technical experts was formed by CA. After considerable consultation with coaches, parents, athletes, officials and industry suppliers, these revised regulations have been developed.

Based on this consultation the CA Coaching Commission recommended that the roll out distance for U17 category competitors will increase to a maximum of 7.0 metres for both Road and Track cycling disciplines at all levels of competition. This recommendation is based on the following:

- The current U15 roll out is appropriate and the U19 roll out is mandated by the UCI for international competition.
- The increase in roll out from the U15 to the U17 category is small (8%) and does not reflect the significant physical maturation and training history of modern U17 athletes.
- The increase in roll out from the U17 to the U19 category is large (22%) and abrupt from an athlete development perspective.
- The current U17 roll out of 6.5m is too small and not preparing athletes optimally for the U19 category.
- A roll out of 7.0m for U17 provides an increase of 17% from the U15 to the U17 category and a further increase of 13% from the U17 to the U19 category.
- A roll out of 7.0m can be achieved using a variety of commercially available gear combinations.

The CA Technical Commission has also recommended a regulation change which affects the manner in which maximum roll out distances can be limited:

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- At Junior U15, U17 and U19 National Road Championships only, 'blocking off' of gears will not be permitted.

Beyond this, most other regulations are unchanged, specifically:

- All roll out distances except for U17 categories remain the same.
- There is no change to the regulation which permits 'blocking off' of gears at all other road race competition (other than National Road Championships).
- There will be no regulation governing specific gear combinations which may be used.
- It remains the responsibility of the athlete to ensure that any wheel change during an event does not increase their roll out beyond that permitted by the regulations.
- State Cycling Associations may have their own regulations governing roll out.

The National Junior Director recommends that any junior Road athlete with international high performance aspirations consider the use of a 14 tooth cog to achieve maximum roll out distance in line with current international practices.

### New Regulations (coming into effect from 1 October 2012 and not before)

The recommendations by the CA Coaching Commission and the CA Technical Commission will be put into effect by amending the CA Technical Regulations (Road and Track) 3.6.01, 3.40.11 and 3.43.05 as follows (changes indicated in red):

#### 3.6.01 Gearing - roll out distances

For all junior categories, male and female, the following maximum roll out distances shall apply for:

	Road Events	Track Events
1.	Junior U19 7.930 metres *	
2.	<b>Junior U17 7.0 metres</b>	<b>Junior U17 7.0 metres</b>
3.	Junior U15 6.0 metres	Junior U15 6.0 metres
4.	Junior U13 5.5 metres	Junior U13 5.5 metres
5.	Junior U11 5.5 metres	Junior U11 5.5 metres

\* When competing in junior only events

\*\* A gearing roll out calculator can be downloaded from our [webpage](#).

**3.40.11** and **3.43.05** regulate equipment at the Australian Road Championships (including U19) and National Junior Road Championships (U17 and U15). The following will be appended to each regulation: **Blocking off of gears by adjustment of the derailleur or other means to comply with maximum roll out distances is not permitted at U15, U17 and U19 National Road Championships.**

If you are unsure about how to set up your bike and conduct a roll out please ask for help from an accredited coach at your club, or contact Cycling Australia at [officials@cyclimg.org.au](mailto:officials@cyclimg.org.au).