

Youth gear restrictions: A guide for riders and parents

This guide aims to provide information and practical guidance on youth gear restrictions.

Why have gear restrictions?

- It ensures all riders compete together on a fair and equal standing
- It helps to reduce the risk of overuse injuries and avoid strength imbalances in young riders; it may also help riders to develop good pedalling technique
- It encourages young riders to race using tactics as opposed to using bigger gears to go faster. This will help to support the riders in learning new techniques which they will need throughout their competitive career

What are the restrictions?

Tech Reg 3.3 (British Cycling Rule book, Technical regulations general & for Road, Track & Roller Racing)

In all events other than under the provisions of 3.3.3 below, Youth category riders shall be restricted to maximum gears as shown in the following table. Ref T.R 3.3.2

Category		Road Racing	Track Racing	Roller Racing
Junior	Under 18	7.93m	n/a	n/a
Youth A	Under 16	6.93m	6.93m	7.93m
Youth B	Under 14	6.45m	6.45m	7.4m
Youth C	Under 12	6.05m	6.05m	6.94m
Youth D	Under 10	5.4 metres for all events		
Youth E	Under 8	5.1 metres for all events		

Riders with dispensation can contact British Cycling headquarters for guidance on 0161 274 2020.

[Rules can be downloaded from the British Cycling Website here.](#)

How to check your gears

A roll out is the technique used to check whether a bike is within the regulations. The maximum gear restriction is the distance the bike travels in a straight line through one full revolution of the cranks, when in the biggest gear available on the bike. It is always best to have a go at the roll out rather than just relying on the charts as tyres and wheels do vary. How to perform a roll out:

Equipment:

- A metal tape measure
- Marker pen
- Narrow marking tape
- Bike
- Flat surface of at least 8m

Performing a roll out:

- Lay a straight line of tape out to 8m.
- Mark the distance for the relevant categories out and make sure they are easily distinguishable.
- Ensure your bike is in its highest configuration and that the gears are engaged correctly.
- Make sure the chain is engaged in the smallest possible rear sprocket and take all the slack out of the bike.
- Inflate the tyres to racing pressure.
- Position the bike at the starting point on the rollout, ensure that the crank is in bottom dead centre position and aligned with the zero point on the measure.
- Roll the bike backwards, ensuring to stay in a straight line, following the marked area.
- Stop the bike once the crank has completed a full revolution and the crank is back at bottom dead centre.
- Assess whether the crank is within or over the gear restrictions relative to the distances marked out.

Things to consider:

All bikes should be checked prior to the event and the first three riders plus any picked at random in addition to those using gear locking should be rechecked as soon as the event finishes. If a bike does not meet the regulations the rider will be disqualified.

Please note that the sprocket and chain ring combination cannot be used in isolation to assess gear size. The absolute measure for gear restriction is the distance travelled in one complete revolution of the cranks.

Tyre dimensions; please be aware that although the manufacturer may detail their tyres as a standard dimensions, there will be variations from brand to brand. For example because it says “23” on the side does not mean it’s the same as another tyre with “23” on the side.

How to restrict your gears:

Bikes can be restricted to a lower gear. To do this you need to adjust the limit screw on the rear derailleur as shown in the picture below. This will prevent the chain dropping onto the smaller sprockets; this can also be done with the front derailleur to restrict the big chain ring if required.



[Need more information?](#)

[Check out this video of how to perform a roll out](#)