



# COMPETITIVE RIDER JOURNEY

ENDURANCE MOUNTAIN BIKE (MTB)

The **AusCycling Competitive Rider Journey\*** is a holistic approach to the rider development pathway from entry to elite levels, through to life-long participation. This document provides specific information for the **Endurance MTB** disciplines with a more detailed explanation of the various stages of development and key principles. It should be used to help develop and align coaching programs and skill development to the appropriate level for riders.

**Endurance MTB** (also often referred to as cross-country) is an endurance discipline and includes:

- **Cross-country Olympic (XCO)** consists of completing multiple laps around a 4-6 km circuit, with a duration of about 80-100 minutes for elite categories. It is the only cross-country discipline in the Olympics program.
- **Cross-country Marathon (XCM)** with a minimum distance of 60km and maximum 160km the race can be run over a single lap, or multi-lap with a maximum number of laps of three (3).
- **Cross-country Short Track (XCC)** a multi lap race on a short course of no more than 2km and a duration of 20 – 30 minutes.
- **Cross-country Eliminator (XCE)** is a discipline where 4 riders go head to head with the top two riders advancing to the next round and the other two riders eliminated. Each race has a maximum duration of 60 seconds.
- **Cross-country Stage Race (XCS)** is a series of cross-country races in which teams or individual riders may take part. Riders must complete each stage according to the specific procedures for the event in order to be eligible for the next stage.

Other **Endurance MTB** disciplines include Cross-country point-to-point (XCP), Cross-country time trial (XCT) (Time Trial) and Cross-country team relay (XCR).

The race courses for a cross-country / endurance MTB race normally includes a variety of terrain, primarily single track but also road sections, forest tracks, gravel paths, and includes significant amounts of climbing and descending. Paved roads should not exceed 15% of the total course and the course should be wholly rideable even in difficult weather conditions. Extended single-track sections must have periodic passing sections.

\*The term 'Journey' has been used instead of the traditional term 'Pathway' in order highlight that individual development is usually non linear and not always the same between riders.



## AUSCYCLING COMPETITIVE ENDURANCE MTB RIDER DEVELOPMENT PATHWAY

The Journey Elements outlined in the table appear linear for ease of the reader however most riders don't follow a direct linear progression.

Progressions	Foundation		Extension and Refinement		Sport Specific Commitment			Elite and Mastery		
<b>Age</b>	5-12 years old	8-14 years old	12-16 years old	14-17 years old	15-19 years old	17-21 years old	17-23 years old	22 plus years old		
<b>Years in Cycling</b>	0 – 2 years from entry to the sport		2 – 4 years from entry to the sport		4 plus years from entry to the sport			6 plus years from entry to the sport		
<b>Primary Focus</b>	Learning and acquiring the basic foundations of cycling through off the bike movement skills, cycling skills instruction, and free play on bikes.	Introduction to the various cycling disciplines through developmentally appropriate club and school programs. Sampling competition in modified forms with a high emphasis on recreation.	Regular skills instruction, practice and competition through developmentally appropriate club, school and AusCycling endorsed programs. Continued recreational participation.	Continued sport specific commitment. Performance potential identified through competent skills demonstration.	Continued potential identification through skills demonstration, race results and participation at development and performance camps.	Performance potential verified through athlete profiling, physiological testing and race results.	Commitment to pre elite preparation and holistic athlete development through a structured training plan.	Transition to Elite international competition through individual programs, ACT	Podium success at international benchmark events (Olympics, Commonwealth Games, World Championships, World Cups).	Sustained international success over multiple high performance cycles (Olympics, Commonwealth Games, World Championships).
<b>Environment</b>	<ul style="list-style-type: none"> <li>Clubs</li> <li>Schools</li> <li>Community Groups</li> <li>Participation Events</li> </ul>		<ul style="list-style-type: none"> <li>Clubs</li> <li>Schools</li> <li>Participation Events</li> <li>Private Coaching and Skills Instruction</li> <li>Development Camps</li> </ul>		<ul style="list-style-type: none"> <li>Clubs</li> <li>Schools</li> <li>Private Coaching and Skills Instruction</li> <li>Regional &amp; State / Territory Academies</li> <li>Regional &amp; National Development and Performance Camps</li> <li>Event Support</li> </ul>			<ul style="list-style-type: none"> <li>Clubs (including mentoring and coaching)</li> <li>National Performance Camps</li> <li>National Teams</li> <li>Professional Teams</li> <li>Event Support</li> </ul>		
<b>Coach / Instructor Level</b>	Community or Foundation Instructor		Foundation or Development Instructor / Coach		Development or Advanced Instructor / Coach			Advanced or Elite Instructor / Coach		
<b>Training Structure</b>	None		<ul style="list-style-type: none"> <li>Learning to train.</li> <li>1 – 2 programmed sessions per week.</li> <li>Limited session structure / phase planning.</li> </ul>		<ul style="list-style-type: none"> <li>Transition to phased planning.</li> <li>Introduction to Strength &amp; Conditioning.</li> </ul>	<ul style="list-style-type: none"> <li>Full phase planning and session structure year round.</li> </ul>		<ul style="list-style-type: none"> <li>Full phase planning and session structure.</li> <li>World class coaching, testing and sports science support.</li> </ul>		
<b>Competition / Racing</b>	<ul style="list-style-type: none"> <li>Strong emphasis on free play.</li> <li>No or modified competition.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to developmentally appropriate club level racing.</li> <li>School competition with a focus on participation.</li> </ul>	<ul style="list-style-type: none"> <li>Continued club level racing.</li> <li>Introduction to state / regional / National Cup Bronze level events.</li> <li>Strong emphasis on process goals over results.</li> <li>U15 and U17.</li> </ul>	<ul style="list-style-type: none"> <li>Continued club, state / regional, State Series / Championships and National Cup Silver level events.</li> <li>U17 and U19.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to National Cup Gold and National Championships.</li> <li>U17 and U19</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to international events.</li> <li>UCI Junior Series.</li> <li>UCI cat 2 and 3 events.</li> <li>U19 and U23.</li> </ul>	<ul style="list-style-type: none"> <li>Continued participation in international events.</li> <li>Racing blocks based overseas.</li> <li>UCI HC, Cat 1 and 2 events.</li> <li>World Cups</li> <li>U19, U23 and Elite.</li> </ul>	<ul style="list-style-type: none"> <li>Extended international racing blocks / based overseas for entire season.</li> <li>UCI HC, Cat 1 and 2 events.</li> <li>World Cups</li> <li>World Championships</li> <li>Commonwealth Games</li> <li>Olympic Games</li> <li>U23 and Elite</li> </ul>		
<b>Cross Discipline Focus</b>	Encourage and facilitate participation on any bike.	Encourage and facilitate participation on any bike. Actively encourage and facilitate riders experiencing other disciplines.	Continue to facilitate multiple disciplines.		Focus narrows to MTB XCO (60-80%). Additional disciplines potentially include Gravity Enduro (skills development), CX (skills and physiological development) and road (physiological development).			MTB Endurance (XCO / XCM) primary focus (70-80%). Road and CX potential secondary disciplines.		
<b>Multi-Sport Focus</b>	Cycling is included in a broad range of physical activities and free play. Formalised cycling is not necessarily facilitated year-round.		Cycling continues to be combined with other sports.		Cycling becomes primary focus.			Cycling Only.		
<b>Education and Knowledge</b>			<ul style="list-style-type: none"> <li>Training fundamentals.</li> <li>Basic hygiene, hydration, and nutrition.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to domestic travel.</li> <li>Process goal setting.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to International travel.</li> <li>Basic sleep management and recovery techniques.</li> <li>Advanced hydration and nutrition.</li> </ul>		<ul style="list-style-type: none"> <li>Highly refined international travel, hygiene, jet lag, heat and altitude adaptation processes and techniques.</li> <li>Advanced recovery techniques and performance nutrition.</li> </ul>			
<b>Categorisation Level</b>						Emerging	Developing	Podium Potential	Podium Ready	Sustained Success

**Age:**

Refers to the approximate age of children entering the sport. This will vary with a range of factors particularly physical maturation.

**Competition:**

Age and developmentally appropriate competition is critical at each stage of the pathway. Recommended competition levels are aligned to each stage of development and progress from grassroots club and school events through to world championship, Commonwealth and Olympic Games. More information on running age and development appropriate racing for all disciplines can be found in the [AusCycling Junior Policy](#).

**Multi-Discipline Focus:**

An emphasis on experiencing all cycling disciplines is strongly encouraged at the early stages of development and a multi-discipline approach continues through to elite level. There is strong evidence that competing in multiple disciplines increases the chance of success at benchmark events. There is a strong physiological correlation in the disciplines grouped together in the Endurance and Acceleration sub pathways, and there is particularly high skill and physiological correlation in combining the following, however any combination is encouraged especially at entry level:

- BMX Racing / Track Sprint
- MTB Endurance / CX / Road / Track Endurance
- MTB Gravity / BMX Freestyle

**Environment:**

Refers to the athletes' primary place of support and training delivery.

**Multi-Sport Focus:**

Cycling is a late specialising sport and combining cycling with other sports is strongly encouraged until later in the development journey. Transfer from other sports to cycling is possible and encouraged at any stage in the journey. This could include sports such as triathlon, rowing or cross country skiing.

**Years in Cycling:**

Is of particular relevance to riders entering the sport late or transitioning from other sports. Years in cycling gives an approximation of the time required to progress within the rider journey. Although the diagram is linear, your actual route will evolve depending on your discipline, location, priorities, education, opportunity, and injury.

## MTB ENDURANCE SKILLS INVENTORY AND PROGRESSION

Progressions	Foundation	Extension and Refinement	Sport Specific Commitment	Elite and Mastery		
Years in Cycling	1	2	3	4	5	6+
<b>Cornering</b>	<ul style="list-style-type: none"> <li>Demonstrate correct body positioning and line choice on flat corners.</li> </ul>	<ul style="list-style-type: none"> <li>Negotiate uphill and downhill switchbacks with separation of vision and direction of travel.</li> <li>Carry momentum through berms.</li> </ul>	<ul style="list-style-type: none"> <li>Negotiate step uphill and downhill switchbacks in a group.</li> <li>Negotiate flat, bermed and off camber corners on a variety of surfaces.</li> </ul>	<ul style="list-style-type: none"> <li>Find and use trail features as berms and to aid traction.</li> <li>Identify and ride multiple lines within a corner.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain or improve position in any corner type in a race.</li> </ul>	
<b>Front Wheel Lifts Rear Wheel Lift Bunny Hops Drop Offs</b>	<ul style="list-style-type: none"> <li>Transition smoothly from attack position to front wheel lift.</li> <li>Consistently perform a rear wheel lift with flat pedals.</li> <li>Perform a pedal assisted front wheel lift.</li> </ul>	<ul style="list-style-type: none"> <li>Negotiate a kerb height step up using front and rear wheel lift.</li> <li>Manual on flat ground for 3m.</li> <li>Drop off a kerb using front wheel lift.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently bunny hop 20cm high and 50cm in distance from a speed of 5-8 km/h.</li> <li>Manual through a tabletop jump.</li> <li>Negotiate hub high drops without losing momentum.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently bunny hop to clear obstacles and avoid line changes.</li> <li>Manual through double jumps.</li> <li>Negotiate wheel high drops without losing momentum.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently use front wheel lifts, manuals, and bunny hops to change line and maintain speed during a race.</li> <li>Consistently negotiate any drop off in a race course.</li> </ul>	
<b>Descending</b>	<ul style="list-style-type: none"> <li>Demonstrate correct body position on straight line descents.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate correct body position on technical straight-line descents.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently negotiate B line descents on race courses.</li> <li>Use front wheel lifts and bunny hops on straight line descents.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently negotiate A line descents on race courses.</li> <li>Use front wheel lifts and bunny hops on any descent.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently negotiate A line descents on race courses in a group while maintaining or improving position.</li> </ul>	
<b>Climbing</b>	<ul style="list-style-type: none"> <li>Demonstrate correct body position and technique on a steep climb.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain traction on a steep climb with a loose surface.</li> <li>Track stand on a steep climb and take off without losing traction.</li> </ul>	<ul style="list-style-type: none"> <li>Negotiate step ups on climbs.</li> <li>Consistently link a series of switchback climbs.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently negotiate step ups and line changes on rocky, loose, and muddy climbs.</li> <li>Accelerate through switchback and short transition climbs.</li> </ul>	<ul style="list-style-type: none"> <li>Clean any climb to carry pace during a race to maintain or gain placings.</li> </ul>	
<b>Pumping Jumping</b>	<ul style="list-style-type: none"> <li>Get both wheels off the ground on a tabletop jump.</li> <li>Pump a whole lap of a pump track.</li> </ul>	<ul style="list-style-type: none"> <li>Jump a bike length tabletop jump smoothly.</li> </ul>	<ul style="list-style-type: none"> <li>Link pumping and jumping on a pump or BMX track.</li> </ul>	<ul style="list-style-type: none"> <li>Use pumping and jumping to gain momentum.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and use trail features to pump and jump on a race track to maintain or improve position.</li> </ul>	
<b>Bunch Riding</b>	<ul style="list-style-type: none"> <li>Confidently ride side by side with another rider making contact.</li> </ul>	<ul style="list-style-type: none"> <li>Confidently ride in a group of 4 or more making contact with other riders.</li> </ul>	<ul style="list-style-type: none"> <li>Navigate within a group to improve position.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently hold a wheel in a group through all sections of a race track.</li> </ul>	<ul style="list-style-type: none"> <li>Defend and improve position during a race.</li> <li>Sprint to defend position at the finish.</li> </ul>	
<b>Race Stats</b>	<ul style="list-style-type: none"> <li>Clip in on first attempt.</li> </ul>	<ul style="list-style-type: none"> <li>Clip in on first attempt and accelerate out of the saddle using gears.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently gain places in race starts.</li> </ul>	<ul style="list-style-type: none"> <li>Consistently gain positions from any grid position.</li> </ul>	<ul style="list-style-type: none"> <li>Execute consistent race starts utilising a range of physical, technical and tactical skills to improve position.</li> </ul>	



**LET'S RIDE TOGETHER**

