

CREATING OUR FUTURE OLYMPIANS



BY GREG KEALEY

From day one, our sport has never followed the traditional path. Even if you don't want to go with the famed Ironman origin story (a group of Navy Seals argue over who is the fittest athlete in a bar after finishing a road race) and choose to go with the 1974 run/ bike/ swim event put together by members of the San Diego Track Club, the bottom line is that triathlon's roots differ dramatically from those of other sports.

Here in Canada, as the sport started to develop in the early '80s, it was very much an adult-oriented activity. Children's races, in the form of the famous Kids of Steel series, came a few years after the first triathlon events. That meant that the growth of triathlon in Canada has been the reverse of virtually every other sport program in the country. Most sports follow a pathway of community youth programs leading to provincial development programs, which lead to national team programs. For sports like swimming and athletics (track and

field), masters programs were born from the groups of aging athletes that wanted to continue to enjoy the sports they once participated in. (Ironically, Dave Pain, who put on a triathlon event in San Diego that helped to inspire that first triathlon, is credited as the founder of masters running.)

After Simon Whitfield's dramatic Olympic win in 2000, the sport burst on to the Canadian scene. With an Olympic gold medalist to our name, one would think that Canada enjoyed a developed sports program that helped to give our best athletes the opportunity to work through a successful system that would take them from talented youngsters to Olympic medalists. Unfortunately, that was hardly the case. This is no slight on Triathlon Canada – there wasn't a country on the planet that had such a system in place. Australia was considered the premier triathlon country in the

world heading into the inaugural Olympic triathlon in Sydney in 2000 and was expected to sweep the women's podium and take one or two of the men's medals, but came out of those Games with just one silver medal.

What has happened since Whitfield's win in 2000, though, has become an issue. Seventeen years later it seems, here in Canada, we've fallen behind other countries. We still seem to be struggling to move from the adult-down-to-children model. While our national program is much better run, more organized and is now led by experienced, knowledgeable professionals, on a national scale we have not yet developed a national development system nor begun to build the infrastructure we need to develop world-class triathletes across the country in a consistent methodical manner.

If Canadian triathletes will ever consistently be at the top end of the sport, we need to develop those athletes within our sport system and



not hope we find a swimmer with a running background or a runner who can swim.

As one of Canada's most experienced development coaches, I have been coaching youth to elite-level athletes for the past 20 years. Over the past three years, I have been developing infrastructure for Triathlon Ontario's Provincial Development Program to support and develop our athletes, with the goal that Ontario's athletes will consistently represent Canada on the world stage.

Swim skills to master

BALANCE: Swimming is done through your core, so proper rotation and maintaining good balance and posture while swimming on your side is imperative.

BREATHING: The timing of your breathing within the stroke cycle is important, and it's important to not hold your breath.

CATCH: It's important that you apply force early during the rotation phase of the stroke. It's important to engage the primary muscle groups as opposed to the stabilizers.

HIGH ELBOW: Maintain a high elbow during the recovery, as your hand enters the water during the catch phase of the stroke.

PULL DOMINANCE: Pull, don't push yourself through the water.

ROTATION: Should start at the hips and your head should remain stable.

STROKE RATE: Open-water swimming lends itself to a higher stroke rate.

SIGHTING: Separate sighting and breathing while keeping your head as stable as possible.

COMPETITIONS WILL ALSO HAVE DIFFERENT SWIM ENVIRONMENTS:

Freshwater with or without a wetsuit, saltwater with or without a wetsuit, etc. Each variable needs to be understood and practiced.

DEVELOP CONFIDENCE FOR SWIM STARTS:

They are aggressive and contact is unavoidable.

—GREG KEALEY



Talent ID

It's not hard to find scientific evidence in most sports that the best young athletes rarely go on to become our best senior athletes. It's not a rule, it's just the reality. The question is why. The answer, in my opinion, is the overwhelming focus on outcome and the confusion between "talent selection" and "talent identification."

Talent selection is the practice of choosing athletes who perform well now at the expense of those capable and willing to participate and possibly grow into elite athletes in the future. Talent identification, on the other hand, is the practice of trying to predict future performance based on an evaluation of current fitness, technical skills, tactical skills and emotional qualities in addition to overall athleticism (the ability to learn and perfect new skills quickly).

Good coaches assess developing athletes not by how good they are now, but if they possess the physical and psychological attributes to eventually become one. Perhaps the athlete has not yet grown, trained at a high level, been exposed to competent coaching or began the sport at a later age. Perhaps they are not as skillful yet, but show a high level of coachability, sensitivity to training and motivation to learn. Identifying talent requires the skill to weigh all the physical, physiological, psychological and technical components of an athlete, as well as the coach's vision for the athlete and "gut instinct."

So why do we consistently measure young athletes by outcomes? In triathlon, we use time trials and race performances. I don't know a coach who would not agree that "skill development is the cornerstone for long term success." Those same coaches then go on to gush over the fastest athletes under their care. That message does not escape the athlete or parent. Coaches who measure their value by the success of their young athletes do so at the expense of long-term success.

Great Britain, considered among the world's leader in athlete development, starts with "Skills Schools" for all athletes aged 11 to 16. Anyone else notice who won the men's gold and silver medals in Rio? Or which country won the bronze (and had the fourth-place finisher) in the women's race?

So what do we need to do?

In my opinion, we need to start by developing a national infrastructure that provides athletes at the youth (12 to 15) and junior (16 to 19) levels with the appropriate skills to be successful at the international level. That means we need to:

- ➔ **IMPROVE THE COACH DEVELOPMENT PATHWAY**
- ➔ **DEVELOP ATHLETE PROFICIENCY IN THE FOUR PILLARS OF PERFORMANCE:**

TACTICAL

TECHNICAL

EMOTIONAL

PHYSICAL



The Coach Development Pathway

Coaching is the cornerstone of the development pathway, and we need coaches who understand the demands of the sport all along that pathway. A coach's job is to effect change, see the potential in the athlete and put into place the strategies to enable them to reach their potential. The coach/athlete relationship is the number-one precursor to success at the elite level.

Coaches should understand that developing an athlete's talent is not what you can measure, but who you can see in front of you. The training environment should be a place where failure is OK, and learning is supported, where athletes feel safe taking chances and pushing boundaries. Coaches need to ensure that athletes understand the aspects of success – the challenges, the costs, the choices, the tough decisions and the pain.

Since most of the coaches in this country are not full-time coaches, we need to provide a better education system for them – one that is led by the national sports organization (Triathlon Canada) and implemented by the provincial sports organizations.

Stephen Maundor



Four Pillars to Athletic Success

All elite athletes must be tactically, technically, emotionally and physically proficient to be successful. Developing athletes should be working on these areas to meet the demands of the sport at the highest level.

1. Tactical

The tactical aspect of triathlon can not be understated and, for a developing athlete, it is an important part of understanding the sport as a whole, as well as the different aspects in breaking down the race.

Developing a Race Plan: Developing a race plan is a process to help you discover the type of “racer” you will be. Race plans are not vague and general (“I want to come out of the water in good position”); they are detailed and specific, breaking down the race into its main components. For example, if the race has a beach start, how many steps will you take before diving in? How many dolphin dives? Planning brings confidence and calm on race day. Race plan development takes into consideration “contingencies” – what will you do if you end up in a second or third bike pack? What is your pacing plan on the run if you find yourself in the lead group?

Know Your Pace: Far too many young athletes don’t know how to pace themselves or understand the importance of developing a pacing plan. For example, many athletes have told me that their coaches tell them “elite athletes run harder out of T2 and settle in” and suggest that a young developing athlete follow the same process. This approach may be good for experienced elite athletes who have developed that ability over years and years of specific training, but for younger athletes, this is not a great idea and will usually mean they finish slower than their intended race pace. Developing athletes need to learn what their limits are, push them in practice and rely on them in competition.

Course Profiling: Know the course. Is it hilly or flat? What gears do you need to be in? What lines will you take on the bike? Where will you position yourself in the pack? The ability to profile a course helps to develop your race plan, as well as allowing you and your coach to develop training for that specific course to maximize your training and race performance.

There are more areas to work on and understand than can be mentioned here, the point being that young athletes need to be working on these skills early in the development pathway and not wait until they are elite-aged athletes before these items are introduced to them.

2. Technical

We all hear about developing proper technique, but let’s make this a bit simpler. Do the basics well.

The foundations of each discipline need to be done well, when fresh, when under fatigue and when under duress. Each coach will have their own priority list of what is important (see sidebar). For me there are two factors that flow through all three disciplines, balance and rhythm. To me speed is built on a solid foundation of skills. The better an athlete’s skill set, the higher the potential for success.



3. Emotional

The emotional aspect of the sport is often the most overlooked. Coaches need to develop people first and athletes second. There are three personality traits that underpin the success of young athletes: persistence, patience and resilience.

Persistence: Go outside your boundaries, take risks, don’t be afraid of failure and don’t avoid failure. Learn from your failures through reflection and assessment. To me “experience” is when you reflect on failure and develop strategies to improve the outcome next time.

Patience: Understand that learning takes time, that athletes need to be allowed to create a healthy respect for themselves and gain the confidence they need to learn new skills. Triathlon is not a sport that can be mastered early, with too much focus on fitness in the early years and not enough on “the process of improvement.” Understanding improvement can be measured by more than just using a clock, develop a process, follow that process and be patient. Top-level success in our sport typically comes in the mid- to late-20s. That’s seven to 10 years away for most juniors.

Resilience: Take on challenges with belief and purpose. Thrive when faced with a challenge, rather than avoid things you can’t do easily or find difficult. A coach’s primary job is to “effect change” and, yes, change is difficult, but it can’t be avoided. Young athletes need to develop the ability to recover quickly from difficulty, setbacks and failures.





Keys to excellent cycling

Cycling has quickly become the “make or break” component of competitive draft-legal events. The days when all the packs converge and the race becomes a foot race are over. Developing proper cycling skills are imperative for being competitive.

PROPER BIKE FIT: Have one done by a professional who understands triathlon (as opposed to a cycling specialist).

POWER PRODUCTION: You need to be able to produce power through torque (high resistance) and cadence. The demands of the sport require an ability to perform at a variety of cadences.

REPEATABILITY: Draft-legal racing requires repeated high-power efforts. An ability to recover quickly and be able to sustain multiple efforts is more important than an athlete's FTP (Functional Threshold Power). While FTP tracking is useful for long-course, non-drafting triathletes, it is less relevant to draft-legal racing.

CORNERING: Learn how to read the quickest (best) line through a corner.

BALANCE: Proper balance creates confidence on the bike and helps with pedalling skills, cornering and pack riding. Incorporate balance drills into every session.

CLIMBING AND DESCENDING: Learn to climb properly with the right gear that enables consistent leg turnover. Learn how to pedal even while you're descending to take advantage of the fastest part of the course.

EQUIPMENT AND MAINTENANCE: Know the parts of your bike and how to do general maintenance on it.

PACKING AND TRAVEL: Learn how to pack and rebuild your bike. Keep a written copy of your bike fit measurements. Buy proper tools.—GREG KEALEY

4. Physical

In my experience with developing athletes, there is too much focus early on aerobic development at the expense of speed, strength and the other factors that contribute to long-term performance success. There are many pieces to put together, and aerobic fitness should be one of the final ones.

Structural Strength: Strength-training is an important aspect for all athletes. Athletes need to develop strength around the joints and work on developing a “stable” platform (structural strength) that will allow them to do more direct strength work (as well as the ability to hold form under stress, i.e. top-end speed, fatigue) as they mature. Developing structural strength is also key to reducing the potential for injury as training volume and intensity are increased.

Speed: Speed development is more important than aerobic fitness for youth and junior athletes. Your speed over 5 or 10 km (the sprint and standard distance) is dependent on how fast you can run short distances (400, 800 or 1,500 m). Aerobic fitness can be developed at anytime in the athlete's development pathway, speed can't. Things like working with a sprint coach are imperative for younger athletes, so they can learn proper run technique while running fast.

During run assessments of our provincial-level athletes, we consistently see a breakdown in form and control when sprinting is introduced. This lack of balance and rhythm also affects form when fatigue sets in, or when an athlete has to sprint or surge to stay in the hunt.

Nail the run

The run is the discipline that gets you on the podium, if you're in position to do so. Efficiency is the key – triathletes are fatigued as they start the run and need to be able to do their best work in the final one or two kilometres. This is an impossible feat if you are inefficient. Elite run coaches all emphasize rhythm as the foundation of good, fast running.

FOOT STRIKE: The foot should hit the ground flat, with heel slightly raised. Never run on your toes. Hitting the ground too far forward prevents the large muscle groups (hamstrings and glutes) from producing power. A flat foot plant engages all the muscle groups for better, more efficient power production and reduces injury potential.

CADENCE: Your training and race cadence should be the same. Too many athletes do their base training at one cadence (i.e. 70–80 rpm), but then want to race at 90 rpm. Under fatigue or stress, how will you maintain a cadence you practice only 20 to 30 per cent of your training? Maintaining a higher cadence helps reduce over-striding, improves run metrics and supports the neuromuscular training that will help maintain turnover under fatigue.

RHYTHM: It's the number-one item on an elite coach's list. Develop rhythm and build your speed from that. Your breathing, stride and arm drive all need to be coordinated for you to run fast.

RUN METRICS: Stance time (the amount of time your foot is on the ground), swing time (how long your leg takes to move forward) and vertical movement (how much up and down motion you have in your stride) are all important aspects to run economy. A proper run gait analysis can give you ideas on how to improve your run economy.

DRILLS: Will help with run form and biomechanics and help with injury prevention and run economy. When doing drills, do them with purpose. Know what you are doing, why you are doing it, how to do it properly and how it relates to performance.

PACING: Developing athletes need to work on negative splits – the ability to finish faster than they started. While seasoned athletes with many years of specific training can start faster and then “settle in” to a given pace, a young athlete does not have that capacity and needs to understand how different paces affect them, how to measure an effort (pace) by feel and how to build that pace through the event.
—GREG KEALEY

Looking Ahead

Over the past few years, there has been an increase in programs for youth- and junior-aged athletes in Ontario and across the country. Provinces are developing provincial programs to help expose athletes to International Triathlon Union (ITU) events and Triathlon Canada is working hard to help developing Canadian athletes by bringing more ITU events into Canada and showcasing more international events for junior and elite athletes. As more and more programs are established for youth, we need to provide education and guidance about the proper development avenues and start to steer these programs away from the focus on outcomes and stress the importance on developing the proper processes. We need to send a message to clubs, coaches and athletes that, as provincial and national organizations, we value skill development, coachable athletes and the proper approach to development based on the individual athlete. Athlete assessments have to include the progress in developing the skill sets in addition to assessing outcomes.

We must, if we want to ever consistently be a country to compete for Olympic medals, develop a system such as what countries like Great Britain have done, with the emphasis on and commitment to developing the skill sets first.

The sport is getting more competitive and more countries are developing national systems, following the lead of Great Britain, Australia and the United States. Canada must begin to recognize and implement a national system with proper development benchmarks and assessment needs. Our national and provincial programs need to be integrated, so provincial programs can identify clubs/coaches who are properly developing athletes for long-term success.

In some ways, the sport of triathlon in Canada has come a long way. There are more programs, more events and a proper national high-performance system. However, if we ever want to be at the top of the sport at the ITU level, we need to support our national and provincial programs, develop proper benchmarks and assessment tools and recourses for all community clubs and coaches. We can't continue to waste young athletes' potential by focussing on success before they are ready. **T**

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Stephen Maunder

