



»MATT DIXON«

DEFINING FUNCTIONAL STRENGTH

Functional strength can be a great way to improve your triathlon training and racing. With so many forms of functional strength training being offered it can be difficult to know what will work best. This month *Triathlete Europe's* resident coach, Matt Dixon, breaks down the subject, and explains how a carefully planned and evolving functional strength programme will help you improve in all areas of training to become a faster racer.

Functional strength is a popular topic these days and it's rare to open a magazine or view a website targeted at endurance athletes without seeing content that falls under core exercises or strengthening. It's a subject that's a hotly debated area within training and coaching, with evangelists on both sides of the argument believing their approach is correct. Many successful triathlon coaches decide to never integrate any strength, mobility or power work into their training programmes, beyond what is achieved within swimming, cycling and running.

On the flipside, others tout a view that strength-related training holds equal, or even more value, than the specific swimming, cycling and running training. For these people, strength training is the starting point of endurance performance. With such diverse views, as well as the abundance of articles from the endurance publications, confusion and conflict persists in the endurance sports world.

Because strength training comes in many different forms with lots of fancy buzzwords (core, plyometrics, stability, etc.), as well as different perceptions of what strength work actually is, it often seems that the two sides are arguing

over different things. I read thoughts from those who dismiss strength work, and their arguments will usually focus on the low value of traditional 'Gold's Gym' type bodybuilding, or correctly dismiss generic strength training, pilates or yoga that has no progression of specificity related to triathlon disciplines. Equally, disciples of strength work will often diminish the necessity of sports-specific training, and claim work in a gym can effectively prepare any athlete for triathlon competition.

Countless articles in the media that outline 'five key exercises to performance', or a simple 'non-progressive' programme to follow do not help the subject. These simply do not address the requirements of a proper strength programme. A functional strength programme is not simply heading off to the gym to lift heavy weights, joining a pilates class once or twice a week, or doing 100's of crunches to get a strong abdomen.

I define a successful functional strength programme as one that includes resistance training to target mobility, stability, and strength/power to improve the movements necessary for your specific sport (triathlon). It is critical to keep these mobility, stability, and strength/power in mind because

you will need all three for optimal performance gains.

Where does this fit within triathlon? It is critical to understand that no strength training can be a replacement for any swimming, riding or running that you do. If we think of training as a dartboard, your sports-specific swim, bike and run sessions fit squarely in the bulls-eye, and nothing else hits that close to the centre. A properly designed strength programme will circle the bullseye and provide the platform for you to maximise the performance yield from those specific swim, bike and run sessions. This means that a successful strength programme will be built around the needs of the athlete, the sport, and with a seasonal progression in mind.

I would argue that there is limited value in simply aiming to get strong for strength's sake. Strength does not make a great triathlete. How much you can bench-press or leg-press is mostly irrelevant to endurance performance, and would not be at the centre of a quality programme. Equally, how flexible you are, or how many crunches you can perform, will also have limited positive impact in your performance. Your strength plan needs to run parallel to your endurance training and race season, and be viewed as an ongoing key

supporter to your coordination, mobility, strength, power-potential and resilience as an athlete.

The Common Lens On Strength

When I begin working with a new athlete I will ask about their approach to strength. Sometimes, I will be told it's non-existent, but the most common answer will include a confident 'yes' because they realise the value. Upon further probing, nearly every athlete's approach includes either a weekly group-based class, such as pilates, yoga or TRX training, or a regular 20 to 30 minute 'core and ab' workout they do on their own. The programme seldom has any specific progression and rarely considers the progression, of the triathlon season they are preparing for. This is the norm, and I believe, what many of those who dismiss the value of strength are so against. A non-specific strength session simply won't maximise your performance potential, and repeating any programme without progression cannot continue to yield results. It ends up being a waste of time.

Another common issue for many athletes is to begin each season with a dedicated focus on strength, but allow it to fall away as the endurance training ramps up. Many view strength as an off-season activity that is best suited to a couple of months in the season when endurance training and racing is reduced. Others value strength as a year-round endeavour, but it falls behind swimming, biking and running training as the season progresses, and suddenly disappears from the weekly regimen. This cycle continues year after year, with the start of each season greeted with self-promises of a high strength focus, only for it to fade again.

This all adds up to two main camps within the triathlon space. Those who ignore strength completely, and those who aim to implement a programme, but fail to successfully create a truly valuable supportive and beneficial plan. It is the minority who nail it and have a year-round progressive programme that yields the results needed to truly provide an enhanced potential in swim, bike and run training.

Elements Of A Successful Programme

In designing a successful strength programme we should always bear in mind that it cannot be a 'bolt on' to your endurance training. I always like

athletes to maintain an overarching view of their approach to training, hence viewing strength as an integrated piece of the overall approach. As you can guess, it is why I always return to the pillars of performance, with their equal emotional importance applied to each pillar. Training is not swimming, biking and running. The programme is these three woven into the fabric of nutrition, strength and recovery. That is the plan. This means that we have to design a strength plan with the other components of the plan in mind, as well as your entire life schedule.



Five Strength Training Essentials

1. *It must be progressive:* As touched on previously, a proper strength programme is like building a house. We begin with the fundamentals and then progress from there. The same session repeated each week has limited long-term value.
2. *It must parallel the endurance season:* The progression of the plan must fit within the scope of the overall season, and ensure we are primed for best performance at the right time. Random won't cut it. We need to align the strength programme with the overall progression of the plan.
3. *It must be easy to integrate into weekly training:* The programme must fit seamlessly within the endurance training, so should be planned for just like a swim, bike or run session.

I typically like to think of 'load being load', so aim to integrate into a training day that carries load. Functional strength completed on a rest day compromises the ability to truly rest.

4. *It must be relatively simple to follow:* While there are many exercises out there that could benefit you, we have to ensure that the programme doesn't take up much time, and isn't overly complex to follow. Variance is key but you shouldn't expect to spend 90 minutes in a functional strength session. I see high yield from consistent and regular sessions of 20 to 40 minutes. Of course, this opens opportunity to combine with an endurance session for busy athletes.
5. *It must be specific enough to actually help performance:* While it should be simple, we do want specificity, with all exercises contributing to the overall performance goals. Beauty in simplistic specifics would be the goal.

Strength Programme Benefits

If we are successful at achieving the adaptations noted in our strength programme, the results will be positive for you as an endurance athlete. It isn't just about going faster, but laying a platform of potential, as well as maximising our ability to adapt to the hard work completed in the specific disciplines. The benefits from a properly designed functional strength programme can unlock your potential to improve as an athlete. These include improved movement synchronisation and coordination, improved biomechanics and form, greater overall athleticism and heightened injury prevention. That list should raise your eyebrow because these are great fundamentals for endurance performance. Let's review these in more detail:

Synchronisation and

Coordination: Watch many triathletes and you will see plenty of effort, often without real control or awareness. Your coordination and synchronisation can only improve through a specific strength plan, which can translate to potential improvements in biomechanics, efficiency and power production.

Recruitment: Improved muscle recruitment throughout the entire range of motion of the

movement, resulting with all your muscles working together in balance, instead of stronger muscles compensating for weaker muscles. These should be thought of as an increased amount of our effort actually going into locomotion. You should be able to generate a given power output with less effort, therefore gaining improved resiliency, which means you should be able to hold a certain pace for a longer period.

Remain Healthy: I don't think we need to cover the benefits of maintaining health. It is enough to remind you that avoiding injury unlocks the holy grail of endurance sports; being able to train consistently over many months without having to take time off for injury recovery.

The Functional Strength Season

I am always driven by athlete evolution, and aim for my athletes to become a more 'complete athletes' this season, and improve over many seasons to come. This ethos is present in our endurance training approach but also in my view of functional strength. We always want to keep the big picture in mind and empower you to progress, not only towards your key events this year, but your vision for the athlete you want to become. This means we set up a season of functional strength as a cyclical multi-year approach, that is repeated and evolved year on year throughout athlete progression.

We only need to focus on a single season progression. It should be laid out, typically, with a focus on improving:

1. Mobility
2. Foundational strength
3. Stability, coordination and synchronised movement
4. Power production
5. Injury prevention and enhanced recovery

We always have to balance this long-term progression with the immediate goal of getting ready to perform at your best for your "A" race, which is why the types of exercises and the purpose of each workout will change and evolve as the season unfolds. I like to think of three progressive phases for functional strength over the course of an endurance season of training and racing.

Phase One:

Foundational Strength & Stability

Lay foundation of stability and strength to improve your ability to handle increasing training load, and prepare the body for stress with power-production and multi-directional exercises.

Phase Two:

Synchronisation & Power

Shifting focus towards sport-specific functional movements and more complex exercises, you should maximise strength gains, as well as improve power production here.

Phase Three:

Race Season Performance

We optimise our preparedness to race, as well as shifting focus to maintaining health, joint mobility and recovery.

This feature doesn't have space to truly outline the types of exercise progression, the number of repetitions, or how to actually execute your functional strength programme. That is not the aim. The aim is to help cement functional strength into your performance approach, and allow you to truly understand that it is an ongoing cyclical element of training, just as your swimming, biking and running. You should stop thinking of the strength work as a nice supplement, and begin to view it as an integral part of your overall programme. ●

