



STRENGTH PROGRAMMING



**STRENGTH AND
CONDITIONING**
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BECOME THE EXPERT



INTRODUCTION

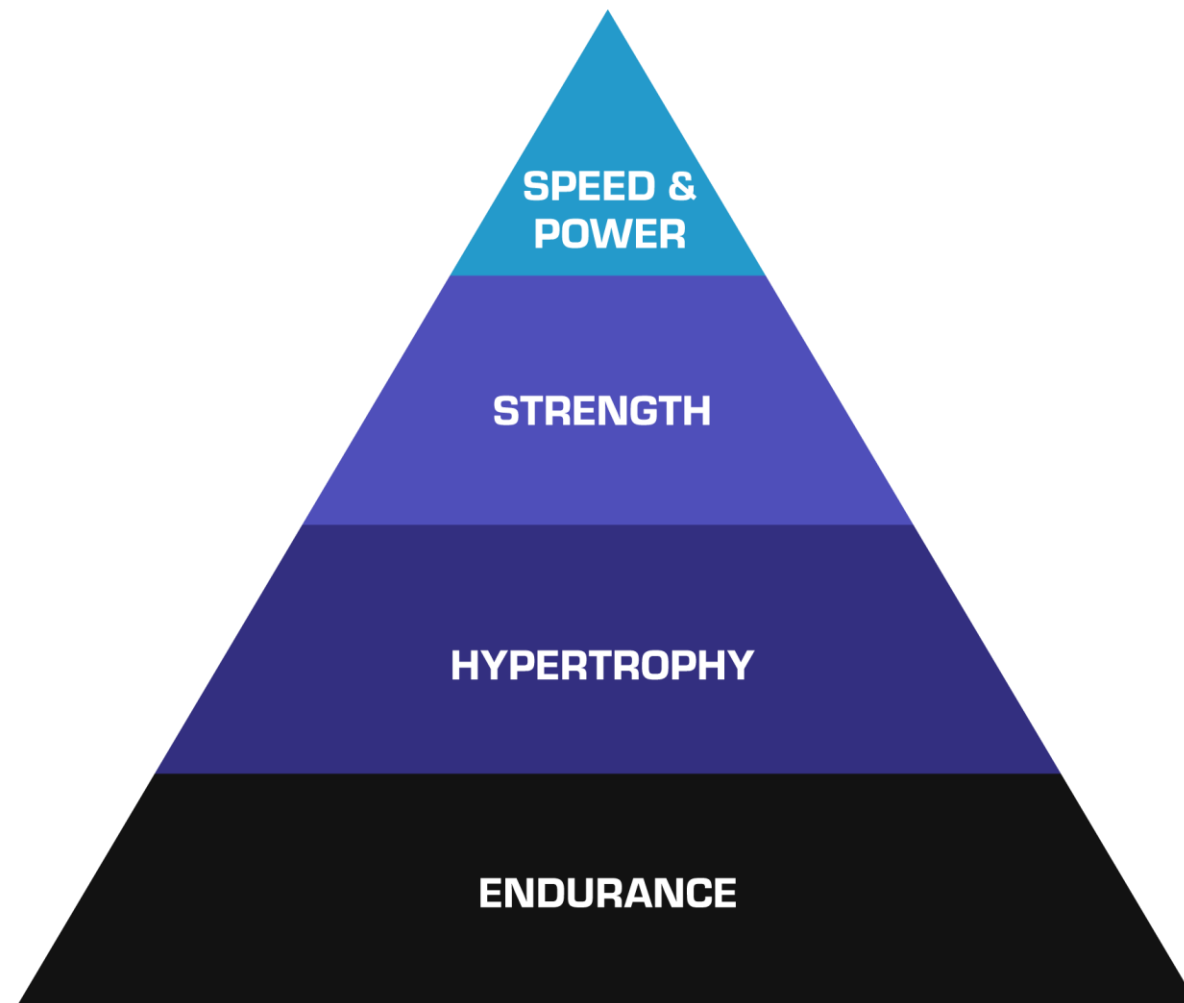
The development of strength is the foundation of physical performance because, before all else, you need the strength in your structures to support the fundamental movements that you carry out each day.

This content is taken from our Programming & Periodization course – you can find the link on the last page of this document.

Note: Periodization is the systematic development of progressive cycles or blocks of training that aim to elicit peak performance at a specific time (competition).

When we program resistance training, aka strength training, we often take a traditional, linear approach to the periodization.

This model starts with high volume and low intensity, and gradually working towards low volume and high intensity.





STRUCTURING A STRENGTH SESSION

Phase	Example
Warm-Up	Raise / Activate & Mobilise / Potentiate.
Plyometrics / Ballistic Training / Complex Lifts	Jumps & Throws / Weightlifting
Primary Lifts	Compound Lift – of most importance
Assistance / Accessory Lifts	Compound Lifts – work to develop the primary lift or sporting action.
Auxiliary Lifts	Single Joint / Isolation Exercises – work to develop the primary lift or sporting action.
Stability	Rotational Movements & Isometric Holds – often core/trunk work or proprioceptive work.
Cool Down / Mobility	Low Intensity Cardio / Rolling & Stretching



RESISTANCE TRAINING REP RANGES

To elicit adaptations, we need to invoke stress and stress comes in a variety of forms.

When we add load to the body:

- Our neuromuscular system is required to work harder to contract the muscles – **Neuromuscular stress**.
- Our energy systems have to work harder to fuel the contractions – **Metabolic Stress**.

Greater neuromuscular stress is created when we lift heavier loads and this elicits greater strength development. When we lift lighter loads for much higher rep ranges, the repeated efforts require more fuel. Therefore, we develop muscular endurance. Hypertrophy could be seen as a goldilocks zone between neuromuscular and metabolic stress and is optimal for the development of muscle mass.

Strength	Hypertrophy	Endurance
1-5 Reps	6-12 Reps	12+ Reps



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1RM ESTIMATIONS

Note: The higher the rep range, the less accurate the 1RM estimate becomes.

% Estimations	Coefficients
2RM = 94-96% of 1RM	2RM x 1.05
3RM = 91-93% of 1RM	3RM x 1.11
5RM = 85-88% of 1RM	5RM x 1.16
8RM = 80-82% of 1RM	8RM x 1.24
10RM = 75-77% of 1RM	10RM x 1.33



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STRENGTH TRAINING PERCENTAGES

Here are some recommended rep ranges for strength, hypertrophy and endurance:

Quality	Percentage of 1RM	Recommended Reps
Max Strength	95%+	1-2 Reps
	90%	1-3 Reps
	85%	2-5 Reps
Strength & Hypertrophy	80%	3-6 Reps
	75%	5-8 Reps
Hypertrophy & Endurance	70%	8-10 Reps
	65%	10-15 Reps
Endurance	50-60%	15+ Reps



REST PERIODS: STRENGTH

The below table shows recommended rest periods for different percentages of a 1RM – for max strength development, if you need another 30 seconds, take it.

Quality	Intensity/Load	Rest Period
Max Strength	85%+	3-5+ Minutes
Sub-Max Strength (Strength-Speed)	70-85%	2-3 Minutes
Sub-Max Strength (Hypertrophy & Endurance)	50-80%	1-2 Minutes
Ballistic Training (Speed-Strength)	30-60%	30-120 Seconds
Stability	N/A	10-60 Seconds



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THE RPE SCALE

The simplest way to quantify the intensity of a set or training session is to use the RPE scale of 1-10 – Rating of Perceived Exertion.

The RPE scale often uses a 1-12 or 1-20 scale. However, the 1-10 scale allows you to easily translate the numbers into percentages which can be more intuitive to athletes.

RPE	Intensity
1-2	Vey easy
3	Easy
4	Moderate
5-6	Somewhat hard
7-8	Hard
9	Very Hard
10	Maximal



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RPE EXAMPLES

Here's a table demonstrating how the RPE scale can relate to percentages of your 1RM:

	85%	87.5%	90%	95%	100%
1 Rep	RPE 8	RPE 8.5	RPE 9	RPE 9.5	RPE 10
2 Reps	RPE 8.5	RPE 9	RPE 9.5	RPE 10	
3 Reps	RPE 9	RPE 9.5	RPE 10		
4 Reps	RPE 9.5	RPE 10			
5 Reps	RPE 10				



PROGRAMMING & PERIODIZATION



This content has been taken from our Programming & Periodization course:

“When it comes to most things in life, having a good plan is fundamental to success, and this is definitely true for physical training and sport.

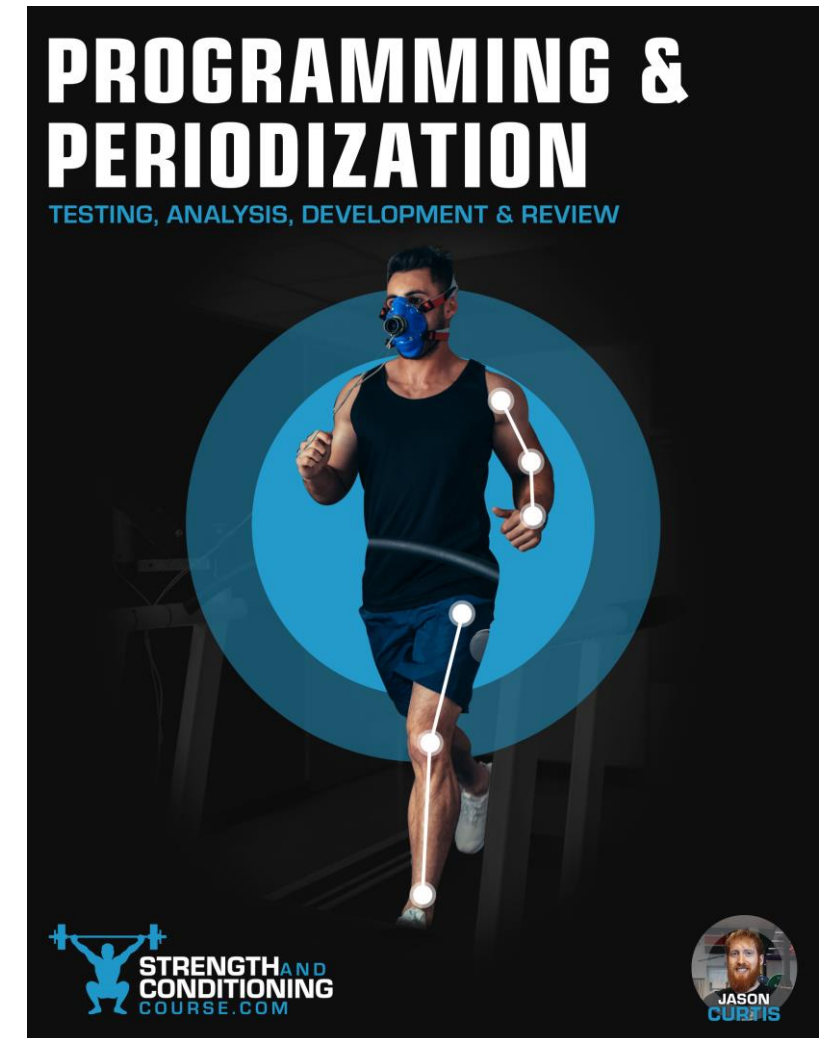
Yes, athletes can achieve huge success with a little hard work and a lot of consistency. However, when it comes to long-term development, there is no doubt that we benefit from taking a systematic approach.

No plan is perfect simply because there are too many variables. However, our aim is to create a plan that is optimal in the given time and environment - these plans are live documents that are continually reviewed and developed.

Although no plan is ever perfect, top sports scientists and coaches from around the world have dedicated their lives to creating what they believe to be the optimal planning models. This has left us with an incredible amount of data, and we can use this data to design intelligent plans that elicit the highest results.”

Here's the link to the full course: **50% Off!**

<https://courses.strengthandconditioningcourse.com/p/programming-periodization-big8-no1-members>



HOPE YOU ENJOYED
OUR CONTENT



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