

Advanced Resistance Exercise Prescription

The purpose of advanced resistance exercise prescription is to provide you with a practical experience that will advance your existing knowledge of resistance training and prescribe the right type of resistance training to achieve your desired outcome.

We took the athletes results from her last test (Basic Resistance Exercise Prescription) and made her a program based on her results.

Clients Goals and Program.

Her goal was maximal strength. From table 1 we looked at the reps, sets, rest, tempo and effect for maximal strength and prescribed her exercises based on those values. From four exercises her reps ranged from 3-5, her sets were all set at 3 and her tempo was moderate.

With these tables she is knowledgeable enough to prescribe herself basic exercise training program based on her 1 RM.

Table 1. Considerations for resistance training design

REPS	SETS	REST	TEMPO	EFFECT
5-8 (30-60%)	3-5	> 3 min	Fast	Power
1-5 RM	3-5	> 3 min	Moderate – Fast Concentric	Max. Strength
6-12 RM	2-4	1-3 min	Moderate	Hypertrophy
≥ 15 RM	1-3	1-2 min	Fast	Strength Endurance

Table 2. Power training spectrum

Speed/Power	Ballistic Power	Maximal Power	Explosive Power	Maximal Strength
0-20% 1 RM	20-40% 1 RM	40-60% 1 RM	60-80% 1 RM	80-100% 1 RM
Jumps and throws	Jumps and throws	Jumps and throws	Olympic Lifting or other modified movements like a power shrug or top pull	Dead lift, squat or pull up

Table 3. Estimate of 1RM

1 RM	100%
2 RM	95%
3 RM	93%
4 RM	90%
5 RM	87%
6 RM	85%
7 RM	83%
8 RM	80%
9 RM	77%
10 RM	75%

Table 4. Exercise program

EXERCISE	RESISTANCE (in kg and % RM)	REPS (#/set)	SETS (#)	REST (sec)	TEMPO
Warm Up	10 min				Moderate
Barbell Bench Press	20 kg 85% RM	3	3	120	Moderate
Cable Pull Down	36 kg 80% RM	5	3	120	Moderate
Barbell Squats	30 kg 83% RM	5	3	120	Moderate
Dumbbell Arnold Press	9 kg 85% RM	3	3	120	Moderate
Cool Down	10 min				Light