

Shot Put: Hit The Ball Rolling

Structure, Movement, and Preparation

By John Dagata

Glide Technique

Stand

- Long Free Arm
- Eyes Back
- Extend Hip



Lock Left

- Left Leg Extended(Push off the Heel)
- Land Over The right foot
- Stand Mechanics



Full Glide

- Start Position
- Extension of the free Leg(Half Glide)
- Stand Mechanics



Stand Throw Mechanics

Position

- Feet Position (Space Between The Feet)
- Right Knee over Right Foot
- Chest over Knee



Mechanics

- Long Free Arm
- Eyes Back
- Extend Hip



Development

- Vertical Stand Throws(Double Pivot)
- Step Out
- Stand Throw Reverse



Lock Left Throws

Position

- Right Foot flat in the Back of the circle
- Left Leg extended and lock out towards the sector
- Chest of knee with Shoulders Square



Mechanics

- Unseat straight to the sector
- Push from the heel of the right foot
- Land Closed over the right leg and repeat Stand Throws Mechanics

Development

- Lock Left Vertical Stand Throws(Double Pivot)
- Lock Left Step Out
- Lock Left Stand Throw Reverse



Full Glide Throws



Position

- Low Start Position
- Left Leg extended and locked out towards the sector
- Land with Chest over the knee, Shoulders Square (Stand Throws Mechanics)

Mechanics

- Slow to Fast Rhythm
- Push from the heel of the right foot
- Land Closed over the right leg and repeat Stand Throws Mechanics

Development

- Full Glide Vertical Stand Throws(Double Pivot)
- Full Glide Step Out
- Full Glide Stand Throw Reverse



Energy Systems

Throws



- Anaerobic Phosphate (ATP-CP): 0-10sec
- Anaerobic Lactate (Glycolytic): 10-60sec
- Aerobic Energy System: 60sec.- ?

Note: Proper Recovery of ATP & CP:

- A. 30 Seconds-50%
- B. 1 Minute-75%
- C. 90 Seconds-80%
- D. 3 Minutes-98%

Balancing The Energy Systems

- Percentages and Ratios of Energy Systems are defined by Performance!
- Neural Development: Approach the training of athletes from the rate of impact it has on the nervous system. (CNS-PNS)
- All Three Energy Systems will be Used.
- How Much, When, & Where? You're the Artist!

The Importance of Order and Exercise Prescription

Warm-Up

Event

Special
Strength

Maximal
Strength



Optimal
Improvement

Possible
Injury

Constructing Your Canvas

- **Annual Plan:** Off Season, Summer, Fall, Indoor, & Outdoor
-

Jon Jones- Annual Plan 2018-2019

<u>CYCLE #</u>	<u>DATES</u>	<u>WEEKS</u> <u>Per-Cycle</u>	<u>WEEK THEME</u>	<u>CYCLE</u> <u>THEME</u>	<u>COMPS.</u>
CYCLE II	10/01/18- 11/01/18	4	1: Maximal Strength 2: Special Strength 3: Maximal Strength 4: Max-Combo Stre.	Special Preparation	
CYCLE III	11/03/18- 12/03/18	4	1: Maximal Strength 2: Special Strength 3: Maximal Strength 4: Max-Combo Stre.	Spec. Prep. I Throws Spec.	
CYCLE IV	12/04/18- 01/05/19	4	1: Maximal Strength 2: Special Strength 3: Maximal Strength 4: Max-Combo Stre.	Spec. Prep. II Throws Spec.	
CYCLE V	01/05/19- 02/06/19	4	1: Maximal Strength 2: Special Strength 3: Max-Combo Stre.	Pre. Comp. I Throws Spec.	
CYCLE VI	02/07/19- 03/08/19	4	1: Maximal Strength 2: Special Strength 3: Maximal Strength 4: Max-Combo Stre	Pre. Comp. II Throws Spec.	
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Constructing Your Canvas

- **Annual Plan:** Off Season, Summer, Fall, Indoor, & Outdoor
 - **Cycle Theme:** General Preparation, Special Preparation, Pre-Competition, & Competition
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- **Annual Plan:** Off Season, Summer, Fall, Indoor, & Outdoor
 - **Cycle Theme:** General Preparation, Special Preparation, Pre-Competition, & Competition
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- **Weekly Theme:** Maximal Strength, Special Strength, Combo Max-Strength

Jon Jones- Annual Plan 2018-2019

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Constructing Your Canvas

- **Annual Plan:** Off Season, Summer, Fall, Indoor, & Outdoor
- **Cycle Theme:** General Preparation, Special Preparation, Pre-Competition, & Competition

- **Weekly Theme:** Maximal Strength, Special Strength, Combo Max-Strength
- **Daily Theme:** Power, Olympic, Or Recovery

Shot Put: Training Plans (Comp II:Throws-Performance.)

Theme: Max-Strength

Cycle #: C-VI

Date: 03/05/12-03/12/12

Power Recovery Olympic Recovery Power Olympic

Mon	Tu	Wed	Thur	Fri	Sat
Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb
<u>MJ</u> Rudiment 30m x 1	<u>GSC</u> Pedestal 1x8	<u>Speed</u> 2x20 1x40 2x30 1x50	<u>GSC</u> Pedestal 1x8	<u>MJ</u> x 2 Box x 3 Hurdle x 3	<u>Speed: B.U.</u> 1x50 1x60 1x70
<u>Jumps Squats</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Pull-Ups</u> <u>(Continuous)</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Multi Throw</u> OH Throw 4k X 6-8	<u>ASC</u> Throws Spec 2x6 <u>Ows ½ Set</u> Short Strength <u>Med-Ball</u> Twisting I 1 x 8	<u>Snatch Pull</u> 4x2x85% <u>Hang Snatch</u> 2x2x85% 2x2x87% <u>DB Jerk</u> 2x3x85% 2x3x87%	<u>ASC</u> Throws Spec 2x6 <u>Ows ½ Set</u> Short Strength <u>Med-Ball</u> Twisting I 1 x 8	<u>Jump Squats</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Pull-Ups</u> <u>(Continuous)</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Multi Throw</u> FH Throw X 6-8	<u>Snatch Pull</u> 4x2x85% <u>Hang Snatch</u> 2x2x85% 2x2x87% <u>DB Jerk</u> 2x3x85% 2x3x87%

Throws

What
Shot Put's
Should I
Use?

And
When
Should I
Use
Them?

Table 23
MODELING CHARACTERISTICS FOR MEN
SHOT PUT THROW

Exercises	The results for of sportsmen of various sport grading						
	14-15 m	15-16 m	16-17 m	17-18 m	18-19 m	19-20 m	20-21 m
Shot put 5 kg	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Shot put 6 kg	15-16	16-17	17-18	18-19	19-20	20-21	21-22
Shot put 8 kg	13-14	14-15	15-16	16-17	17-18	18-19	19-20
Shot put 9 kg			13-14	14-15	15-16	16-17	17-18
Shot put 10 kg			10-11	11-12	12-13	13-14	14-15
Snatch	100	110	115	120	125	125	130
Clean	120	130	140	145	150	155	160
Half squat	160	180	200	220	230	240	250
Bench press	120	130	140	160	180	200	210
Long jump	300	300	310	310	315	320	330
Triple jump	880	890	900	910	910	920	920
Up-jump	80	80	85	85	85	90	90
Shot put forwards	13	14	15	16	17	18	19
Shot put backwards	15	16	17	18	19	20	21

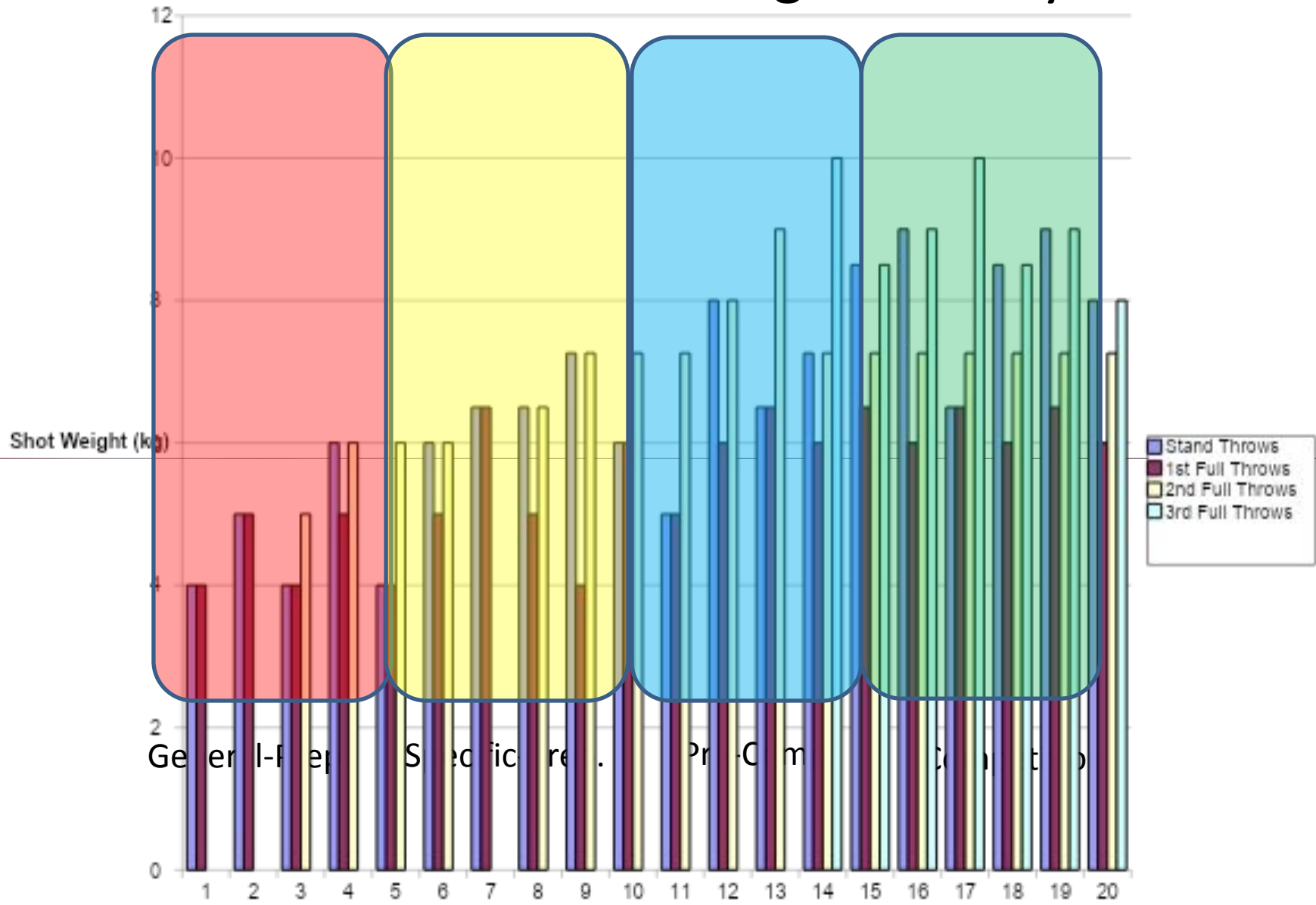
many strength jumping throwing and running exercises

Table 3

The results of the correlation analysis in shot put men between different kinds exercises

Exercises	Result, correlation coefficient						
	14— 15 M	15— 16 M	16— 17 M	17— 18 M	18— 19 M	19— 20 M	20— 21 M
Shot put 5 kg	0.768	0.702	0.724	0.564	0.512	0.456	0.365
Shot put 6 kg	0.872	0.765	0.689	0.654	0.607	0.582	0.498
Shot put 8 kg	0.654	0.669	0.754	0.788	0.845	0.824	0.754
Shot put 9 kg	—	—	0.708	0.806	0.765	0.824	0.724
Shot put 10 kg	—	—	0.552	0.605	0.786	0.765	0.714
Shot put 6 kg (st)	0.662	0.786	0.765	0.808	0.778	0.721	0.687
Shot put 8 kg (st)	0.712	0.687	0.722	0.742	0.825	0.786	0.670
Snatch	0.410	-0.387	0.406	-0.354	0.276	0.211	0.197
Clean	0.366	0.324	-0.287	-0.212	0.226	0.268	0.107
Squat	0.521	0.605	0.724	0.807	0.657	0.398	0.165
Bench press	0.574	0.665	0.642	0.788	0.602	0.305	0.126
Long jump	0.398	-0.344	0.324	-0.245	0.221	0.156	0.127
Triple jump	0.345	0.367	0.325	-0.214	0.242	-0.198	0.222
Up jump	0.566	0.488	0.376	0.324	0.256	0.224	0.178
Shot put forwards	-0.367	-0.321	0.298	0.246	-0.200	0.242	0.192
Shot put backwards	-0.387	0.345	-0.309	0.288	0.244	-0.187	0.156
30 m b/s	0.426	0.367	-0.312	0.242	0.212	-0.178	0.198

Men Shot Put Annual Progression Cycles



Jon Jones: Training Plans (Comp II:Throws-Performance.)

Theme: Max-Strength

Cycle #: C-VIII

Date: 05/03/19-05/30/19

Power Recovery Olympic Recovery Power Olympic

Mon	Tu	Wed	Thur	Fri	Sat
Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb

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What is
Special
Strength?

Special
Strength

<u>Jumps Squats</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Pull-Ups</u> <u>(Continuous)</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Multi Throw</u> OH Throw 4k X 6-8	<u>ASC</u> Throws Spec 2x6 <u>Ows ½ Set</u> Short Strength <u>Med-Ball</u> Twisting I 1 x 8	<u>Snatch Pull</u> 4x2x85% <u>Hang Snatch</u> 2x2x85% 2x2x87% <u>DB Jerk</u> 2x3x85% 2x3x87%	<u>ASC</u> Throws Spec 2x6 <u>Ows ½ Set</u> Short Strength <u>Med-Ball</u> Twisting I 1 x 8	<u>Jump Squats</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Pull-Ups</u> <u>(Continuous)</u> 1x6x81% 1x4x83% 1x2x85% 1x1x87% <u>Multi Throw</u> FH Throw X 6-8	<u>Snatch Pull</u> 4x2x85% <u>Hang Snatch</u> 2x2x85% 2x2x87% <u>DB Jerk</u> 2x3x85% 2x3x87%
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Special Strength

(Exercises Specifically Intended for Performance)

□ **Multiple Jumps:** Jump Circuits (Series of 6-8 exercises with jumping at low amplitude), Box Jumps (5 Boxes Arranged in Ascending Order), Hurdle Hops (Continuously Jumping Over 5 Hurdles & Focusing on Low Ground Contact Times of 0.2 Seconds)

□ **Sprints:** Maximum Velocity efforts at Ranges of 10m-50m (Speed Acceleration), 50m-120m (Speed Development), 80m-150m (Speed Endurance) & Velocity in a Global Sense (Backwards, Sideways)

How
Much
And
When?

□ **Multiple Throws:** These can be done with a shot Putt, a kettlebell, a powerball, a medicine ball or a weightlifting plate.

□ **General Strength Circuits:** A series of 8-10 exercises using body weight as resistance.

Jon Jones: Training Plans (Comp II:Throws-Performance.)

Theme: Max-Strength

Cycle #: C-VIII

Date: 05/03/19-05/30/19

Mon	Tu	Wed	Thur	Fri	Sat
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Throws

Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb	Shot Put: A.M.: 12lb P.M.: 10lb
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Special
Strength

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What is
Maximal
Strength?

Maximum
Strength

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Maximal Strength (Weightlifting)

- Power Lifting: Full Squat (Front & Back) , Jump Squat, Bench Press, Incline Press, Military Press, etc.
- Olympic Lifting: Cleans (From the Floor & Hang) , Snatch Jerks (Front & Back) , etc.
- Ancillary Strength Circuits: A series of 8-10 exercises with weights

When Is

Strong,

Strong

Enough?

Jon Jones: Training Plans (Comp II:Throws-Performance.)

Theme: Max-Strength

Cycle #: C-VIII

Date: 05/03/19-05/30/19

Special
Strength

Maximum
Strength

Mon	Tu	Wed	Thur	Fri	Sat
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Neural	Recovery	Neural	Recovery	Neural	Neural

Jon Jones

TRAINING PARAMETERS 2018-2019

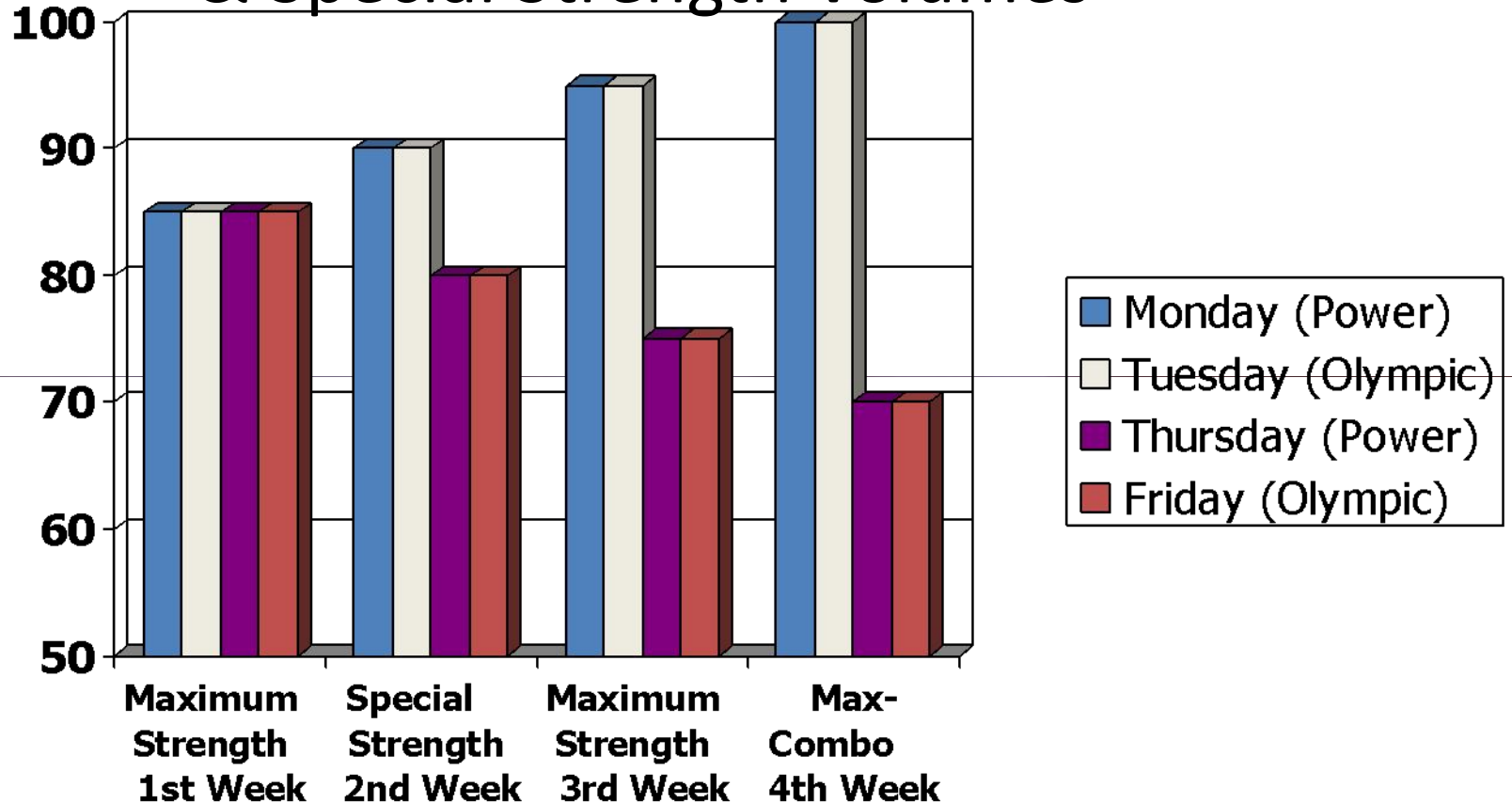
Primary Event: Shot Put (21m-22m)

Exercise	Target	ST	II	III	IV	V	VI	VII	VIII	IX	X	XI
Snatch	80k			█	█		█					
Hang Snatch	70k								█		█	
Clean	115k		█			█						
Hang Clean	105k							█		█		█
BN Jerk	100k		█		█		█		█		█	
FN Jerk	80k			█		█		█		█		█
Bench	80k	█										
DB Bench	50k											
Incline Bench	70k				█							
DB Inc. Bench	40k	█										
Pull Up	6FBW	█	█						█		█	
Back Squat	150k	█	█		█			█				
Front Squat	100k			█			█					
½ Squat	180k										█	
Jump Squat	90k								█			
Step-Ups	80k	█	█			█				█		█

Research Variables

Notes: As Percentages Increase, The Volume will Decrease:
As Percentages Decrease, The Volume will Increase:

Balancing Maximal Strength & Special Strength Volumes



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Questions?