

## Throws Implement Selection

Jerry Clayton  
Auburn University

- Implement Selection
  - Hammer Throw
  - Discus Throw
  - Shot Put (Glide and Rotational)
- Open Discussion and Questions

---

---

---

---

---

---

---

---

## Implement Selection:

Power Training Principles for Top-Class Throwers  
By Peter Tschiene (1972) on Hammer Throwing:

"This event, with the greatest percentage of training time devoted to weight training – especially special strength exercises – has been raised to the present performances level ....."

---

---

---

---

---

---

---

---

Modern Trends in Hammer Throwing  
By Anatoly Bonderchuk (1979)

"During the preparation phase a lot of throwing is performed at an average speed, using overweight hammers (9k to 16k). It should be noted that Soviet hammer throwers use varied weight implements ranging from 1kg. to 16kg. They use many integrating exercises, including specific weight training and isometric exercises in various positions, imitating the final delivery."

---

---

---

---

---

---

---

---

A Biomechanical Analysis of Throws with Different Weight and Length Hammers

By Dr. Klaus Bartonietz (1990)

"Training must be directed to develop a perfect Technique in interaction with the necessary development of strength capacities which includes the use of a large portion of heavy implements in training."

Hammer Throw Technique and Drills

By V. Petrov (1980)

"... while throwing of heavy hammers (9 to 13kg, 80cm wire length) dominate the specific strength development phase."

---

---

---

---

---

---

---

---

Training Derivations From Biomechanical Studies in The Hammer Throw. by Manfred Losch (1991) (see document)

"Throws with different implements that are heavier than the competition hammer are appropriate training exercises for the development of specific strength capacities because they meet essentially the demand to comply with the movement structure of the competition exercise."

"The observed effects of the short heavy implements are efficient in the development of specific throwing power (particularly the components of the forward drive) because the highest acceleration forces take place in the use of these implements."

"The high values of throws with different length and weight implements has proven in the high performance range to be favorable when the variable method makes up 55 to 70% from the total volume of hammer throws."

---

---

---

---

---

---

---

---

### Implement Selection:

Power Training Principles for Top-Class Throwers  
By Peter Tschieni (1972) on Discus Throwing:

"In our training, no great importance is attributed to general weight training, such as cleans and bench pressing, at the expense of special strength exercises to which we count, above all, the throws with the 4kg disc and sometimes the 10kg plate from a stand."

---

---

---

---

---

---

---

---







**TRAINING IMPLEMENTS**

**ROTATIONAL SHOT PUT WOMEN:**

**SHOT PUTS**

Weight	STD	T&T	GS/T&T	T&G	1/4T/SA	FULL	NR FULL
6.6lb/3kg	X	X	X	X	X	X	X
7.7lb/3.5kg	X	X	X	X	X	X	X
8.8lb/4kg	X	X	X	X	X	X	X
9.9lb/4.5kg	X	X	X	X	X	X	X
10.0lb/4.54kg	X	X	X	X	X	X	X
11.0lb/5kg	X	X	X		X	X	X
12.0lb/5.44kg	X	X	X		X	X	X
13.2lb/6kg	X	X	X		X	X	X
14lb/6.35kg	X						
15lb/6.80kg	X						
16lb/7.26kg	X						

**ROTATIONAL SHOT PUT THROWING STYLES:**

STD = STAND

T&T = TURN & THROW

GS/T&T = GAINT STEP/TURN & THROW

T&G = TOUCH & GO/SOUTH AFRICAN

1/4T/SA = 1/4 TURN/SOUTH AFRICAN

FULL = COMPLETE THROW

NR FULL = NON-REVERSE FULL

---

---

---

---

---

---

---

---

---

---

Open Discussion and Questions ??

---

---

---

---

---

---

---

---