## Weightlifting

## Ian South-Dickinson UDLS 7/ate/09

## Overview

- 3 sports
- Powerlifting
- Olympic lifting
- Bodybuilding
- Training


## Powerlifting

- 3 attempts at 1 rep max - Squat
- Bench Press
- Deadlift
- Tons of federations
- IPF, U.S.A.P.L, ADFPF, APF, APA, IPA, WPO
- Weight \& Age classes



## Squat



## Squat

- Powerlifting Version - Wide stance
- 350kg - 771 lbs
- http://www.youtube.com/watch?v=EXj052Ht5pg
- @ 1:40


## Bench Press



## Bench Press

- Powerlifting version
- Wide grip
o 606 lbs
- http://www.youtube.com/watch?v=o3sED9fUvig
- @ 1:10


## Deadlift



## Deadlift

- Powerlifting version
- Sumo stance
- 363.7 lb
o http://www.youtube.com/watch?v=NtMZeU12vXo


## Olympic

- 3 attempts at 1 rep max
- Clean \& Jerk
- Snatch
- Summer Olympics event
- Women's event added in 2000
- Weight classes



## Clean \& Jerk



- 258 kg - 568 lbs , gold medal 2008
- http://www.youtube.com/watch?v=QQ3RBCemQ1I


## Snatch



- 76kg - 167 lbs
- http://www.youtube.com/watch?v=B9RVr0HVkCg o @ 1:10


## Bodybuilding

- Sport?
- Judging
- Posing
- Muscle definition
- Symmetry
- Size
- Popularized by Ahnold in 70's
- Steroid use in 70's


## Steroids

- Synthetic hormones
- Testosterone
- Growth Hormone
- Genetic limits
- Illegal in 90's



## Steroids \& Weightlifting

- Bodybuilding
- Widely used
- Powerlifting
- Most drug test
- Olympics
- It's the olympics


## Preparation

- Offseason
- Bulking, eating tons of food
- 12 weeks
- Extreme dieting
- 3 days
- Dehydration
- Low sodium, high potassium
- Tanning lotion


## Training

- Strength Training
- Olympic Training
- Bodybuilding
- Mix-n-match


## Training Effect

- Mostly depends on \# reps per set, \% of 1 rep max

| Number of Repetitions |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Result of Training | 123 | 5 | 8 | 10 | 12 | 20 | Silliness | Madness | Death | $\begin{gathered} \text { Effect Scale } \\ \text { Large } \end{gathered}$ |  |
| Strength |  |  |  |  |  |  |  |  |  |  |  |
| Myofibrillar Hypertrophy |  |  |  |  |  |  |  |  |  |  |  |
| Sarcoplasmic Hypertrophy |  |  |  |  |  |  |  |  |  |  |  |
| Power |  |  |  |  |  |  |  |  |  |  |  |
| ATP/PC Storage/Efficency |  |  |  |  |  |  |  |  |  |  |  |
| Neural Adaptation |  |  |  |  |  |  |  |  |  |  |  |
| Capillarity |  |  |  |  |  |  |  |  |  |  |  |
| Lactate Generation |  |  |  |  |  |  |  |  |  |  |  |
| Pain Tolerance |  |  |  |  |  |  |  |  |  |  | Small |
| Bone Density |  |  |  |  |  |  |  |  |  |  |  |
|  | 100\% 1RM |  |  | 70 |  |  | 25\% 1R |  |  |  |  |

- riypertropny - increase in muscre size
- Myofibrillar - Muscle contractions
- Sarcoplasmic - Stores glycogen (simple sugars)


## Strength Training

- 3-8 reps
- Compound (multi joint) lifts
- Mostly barbell
- Deadlift, squat, bench, row, overhead press
- High rest between sets
- 3 minutes


## Me

- Training about 1 year
- Squat: $95 \times 5$-> 270x5
- Bench: 60x5 -> 175x5
o Deadlift: $115 \times 5$-> $340 \times 5$
- Goals
- Squat 315x1
- Bench 225x1
- Deadlift 405x1


## Olympic Training

- 3-5 reps
- Explosive reps
- Partial movements


## Bodybuilding Training

- 12-20 reps
- Isolation (single joint) lifts
- Machines
- Low rest between sets
- 30 - 90 seconds


## Toning Myth

- Muscle definition
- High reps, low weight
- Doesn't work



## To the memory of



Elan
1/13/83 to 7/25/09

## To the memory of



Cody
1/13/93 to 8/6/09

## End

