

# How to lift heavy things: a nerd's guide to powerlifting



# Outline

- **Intro to strength sports**
- What is actual powerlifting?
- What is training for powerlifting like?
- How do you compete in powerlifting?

# Intro to strength



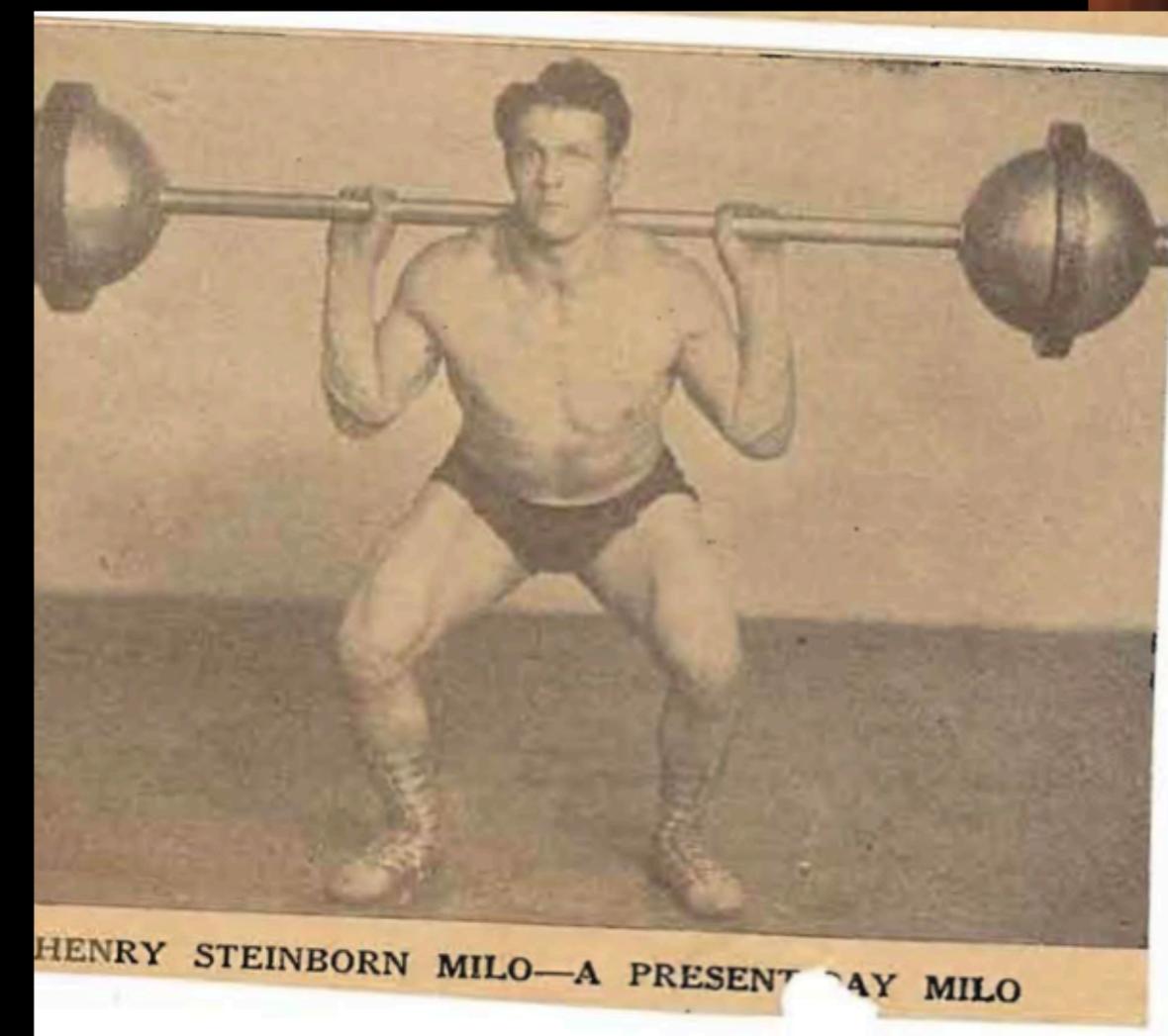
marble sculpture  
depicting Milo attempting  
to split the tree (c. 18th  
century AD)



# Intro to strength



2709331



HENRY STEINBORN MILO—A PRESENT DAY MILO

# Intro to strength

- Barbells began as preloaded bars
- As technology progressed, barbells became loadable via weight plates
- Different strength sports began to differentiate themselves



# Strength equipment

- There's lots of different equipment out there depending on what sport you do



# Intro to strength

- Three main strength sports
  - **Weightlifting**
  - Strongman
  - Powerlifting

# Weightlifting

- This is the sport I know least about
- There's basically just one federation
- Two lifts: snatch and clean & jerk
  - This is always the same in every competition
- It's in the olympics?
- Very technical, requires high skill level



# Intro to strength

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# Strongman

- Two federations, with not a lot of differences
  - One has weight classes, the other doesn't
- Lots of variety in lifts
  - Lots of overhead pressing and picking up heavy stuff
  - Most meets have a wide variety of events - nothing is standardized (bars, events, weights, etc)
- Requires a wide base of strength, because you never know what you might have to do in a competition

# Strongman

- What you see on World's strongest man
- The sport that Thor (the Mountain from Game of Thrones) does
- Lots of big dudes doing crazy things
- Husafell stone Thor
- Eddie Hall WR deadlift

# Strongman

- There are also strongwomen!
- Liefa Ingalls 500 lb deadlift
- Kristin Rhodes carry

# Intro to strength

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# Powerlifting

- Three lifts
  - Squat, bench press, deadlift
  - 3 attempts for each in comp.
  - Total weight lifted is what's counted
  - In other words, the goal is to be as strong as possible!
- Lots of feds, but the two big ones in the US are USAPL and USPA
  - Very few differences in between feds
  - USAPL has very transphobic policies so I do not recommend supporting them

# Powerlifting

- Two variations of powerlifting:
  - equipped
  - raw (unequipped...which doesn't actually mean no equipment)
- Also: drug tested vs. untested
- The difference is just how much supportive gear you use

# Raw lifting



# Equipped lifting



Natalie Hanson world record  
bench

202 kg vs. raw WR of 137 kg

# Powerlifting

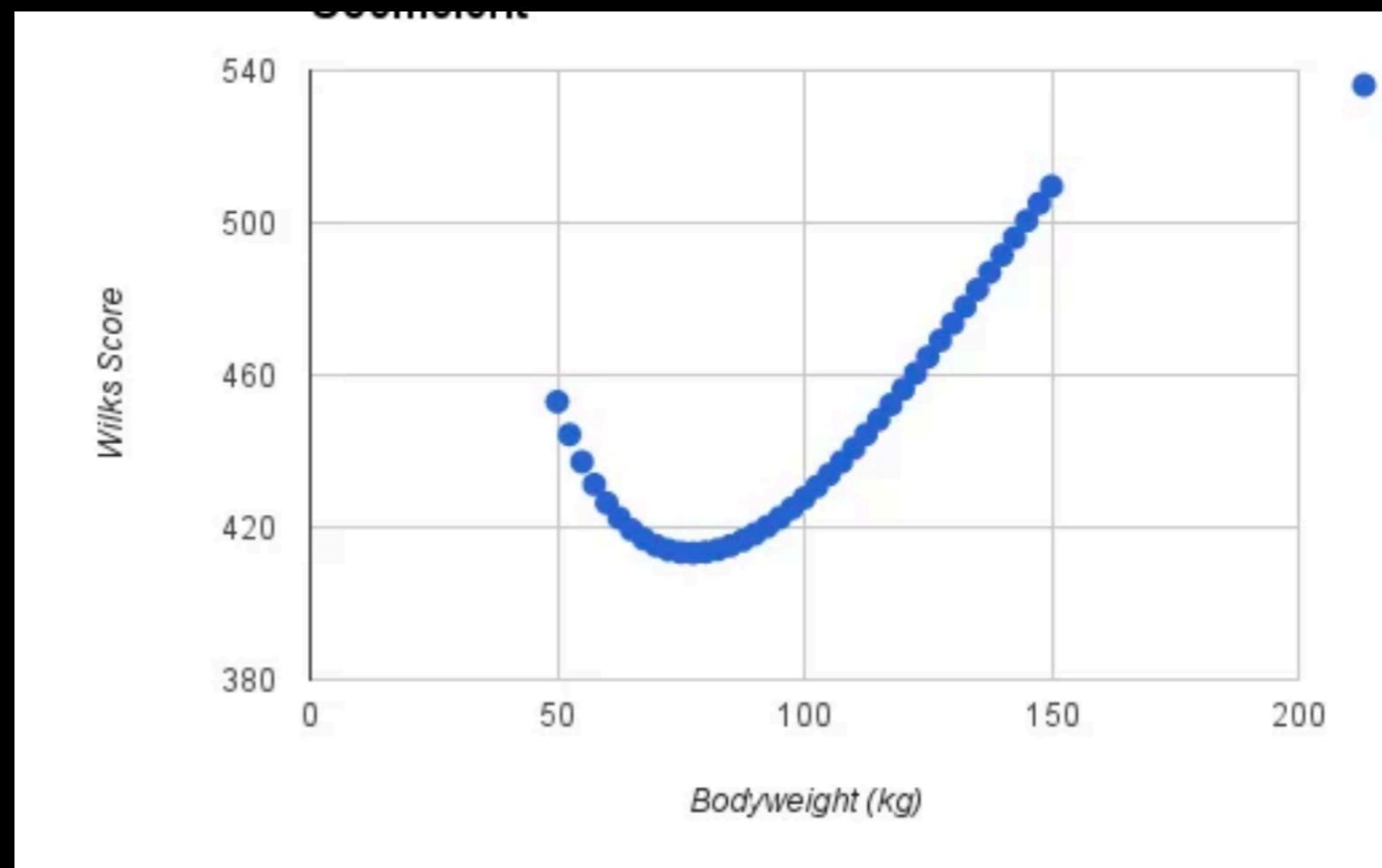
- Equipped powerlifting dominated the sport from the invention of equipment in the 70s until fairly recently
- Similarly, giant men dominated powerlifting (or at least people's perception of it)
- With the rise of CrossFit and Instagram, more people generally began to be interested in strength sports, and women who may have felt isolated before found community
  - Lifting videos are cool and do well on the internet: more people are exposed to the sport
- -> raw powerlifting + women's lifting are undergoing a huge spike in participation right now: lower barrier to entry + new community

# Powerlifting

- Weight class based sport (just like weightlifting)
- Weight classes vary by federation, but records are generally set per weight class
- people may talk about weight lifted as a per-bodyweight value
  - e.g., 135 lbs lifted by someone weighing 100 lbs is way more impressive than 135 lbs lifted by someone who weighs 200 lbs
- There have been attempts to normalize total weight lifted per bodyweight, but no one has been particularly successful at finding a good way to do this

# Powerlifting

- Main way of normalizing by bodyweight is the Wilks formula
- But! This is biased against middleweight lifters
- So if you're scoring using Wilks, you will not fairly assess the impressiveness of a middleweight lifter's numbers



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# Training

- Pretty similar to any other strength training
- Focus on SBD, but use other movements to train weak spots, especially in between cycles for meets
- ‘hypertrophy’ vs ‘strength’ cycles (+ ‘peaking’ for a meet)
- Most people work out 3-4x per week for 1-1.5 hours
- Rest, recovery, and good nutrition are also important for sustainability
- You don’t need to compete to do powerlifting style training!
  - The key is your goal: do you want to increase your ability to lift the heaviest thing possible for one repetition? If yes, the way to do it is via powerlifting training

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# Competing

- Requirements: be able to lift a barbell (45 lbs)
- No really, that's it.
  - Regardless of how strong you are, powerlifters are really welcoming, especially at meets
- 3 attempts each for squat, bench, and deadlift (in that order)
  - Different commands for each lift
  - Some strict rules (bench must be paused, no hitching or ramping on deadlift, depth on squat) but judging strictness can vary
  - 3 judges







# FAQ

- But don't people get hurt lifting heavy shit all the time?
  - relatedly: aren't squats bad for your knees, deadlifts bad for your back, etc
- Do you need to eat a diet of exclusively chicken breasts and rice/protein shakes/something else terrible?
- Aren't all weightlifters taking steroids?
- What are some of the differences between men's and women's powerlifting?