



EUROPEAN POLE VAULT CONFERENCE 2016

Fulcrums and Pendulums
How to work with the pole to achieve maximum
performance
Steve Rippon



COACHING CAREER

- * 1990 - 1998 Western Australian Institute of Sport
- * 1998 - 1999 Columbia University New York
- * 1999 - 2010 British Athletics Loughborough
- * 2010 - 2011 Scottish Athletics
- * 2012 - Finnish Athletics

26 YEAR STRUGGLE AGAINST GRAVITY



POLE VAULT SCHOOLS



- * French
- * Russian
- * Czech
- * USA
- * German

Pole Vault is not like religion



POLE VAULT TECHNIQUE

- ✿ Many different ways beat gravity
- ✿ Many different somatotype
- ✿ High grip
- ✿ Big push



SPEED

- ✱ Linthorne, N.P Energy transformations in the pole vault
- ✱ The athletes running velocity is usually seen as the most important factor in pole vaulting.
- ✱ The generally accepted view is the faster run up allows the athlete to grip higher on a longer and stiffer pole and hence vault higher.



EFFICIENCY

- ✿ Score out of ten
- ✿ Getting most out of technique and pole
- ✿ Pole is your friend
- ✿ Pole vault is the only event in track and field where the implement aids performance
- ✿ Working together to beat gravity

PAUL BURGESS

Age	Result	Pole	Flex	Grip	Push
14	390	13-160	17	380	30
15	480	14-185	13.2	430	70
16	525	15-195	13.2	460	85
17	551	15.9-195	15.2	470	101
18	560	16.5-200	14.4	487	93
21	571	16.5-205	13.2	490	101
26	600	16.5-215	11.7	492	128

PELVIC CONTROL



PELVIC TILT

Neutral



Posterior
pelvic tilt



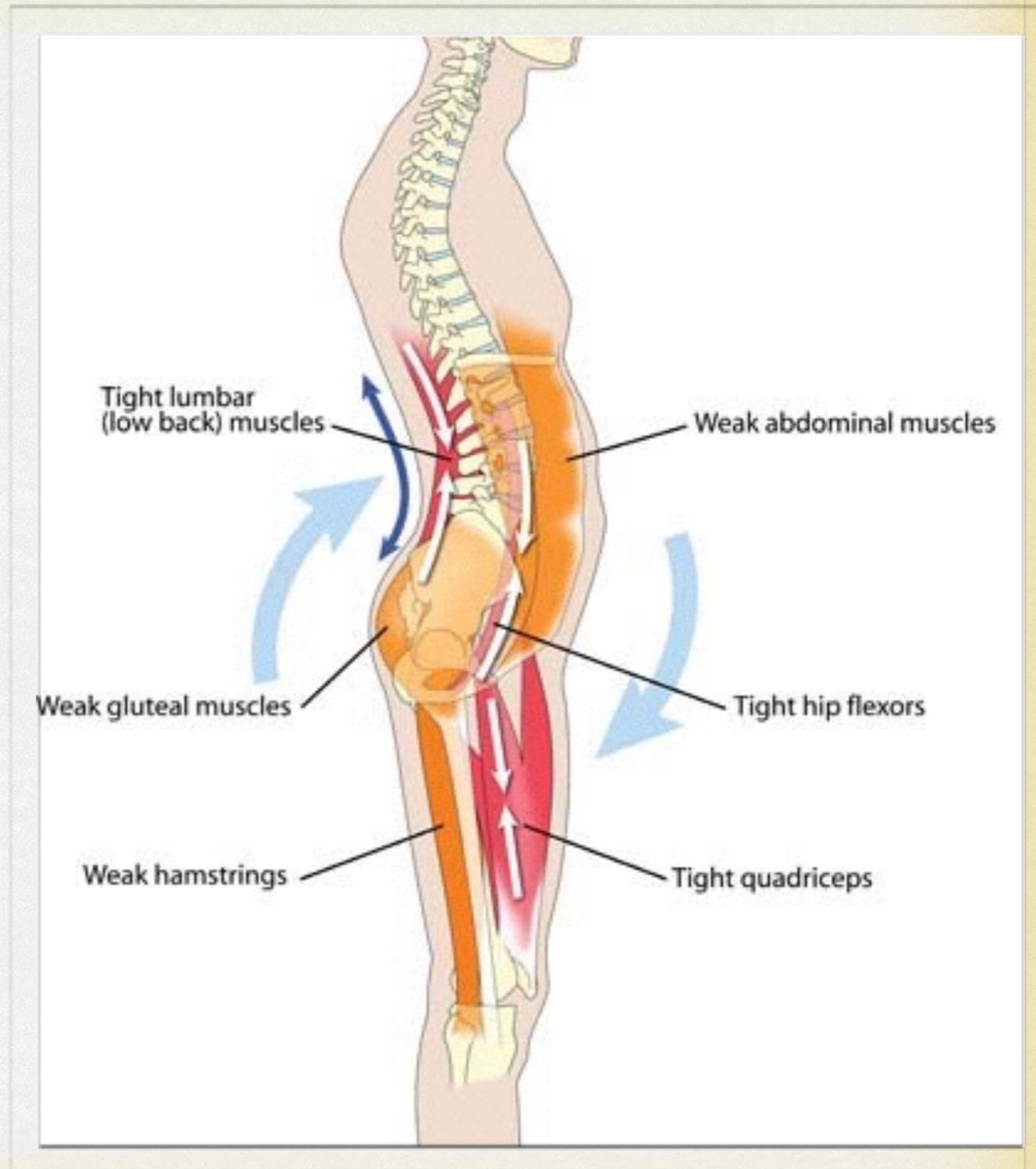
Anterior
pelvic tilt



FORWARD TILT

Muscles not in optimal length to provide force.

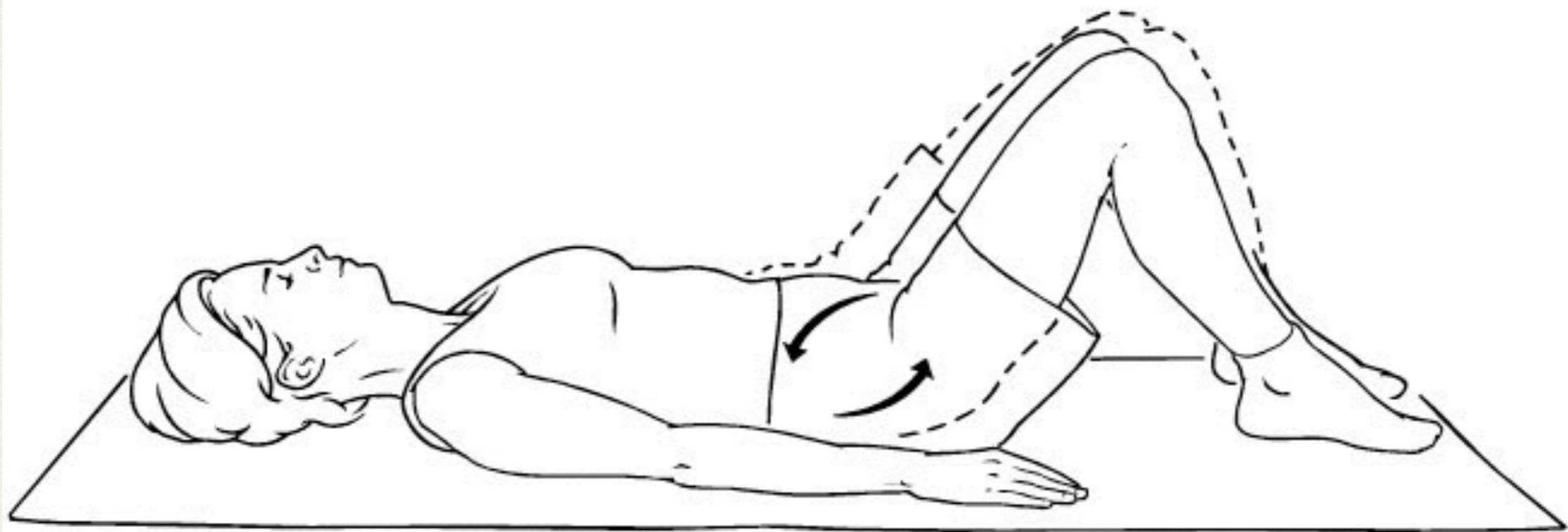
Abs and hamstring are long. Back ext and hip flexors are short.







NEUTRAL SPINE



FULCRUM

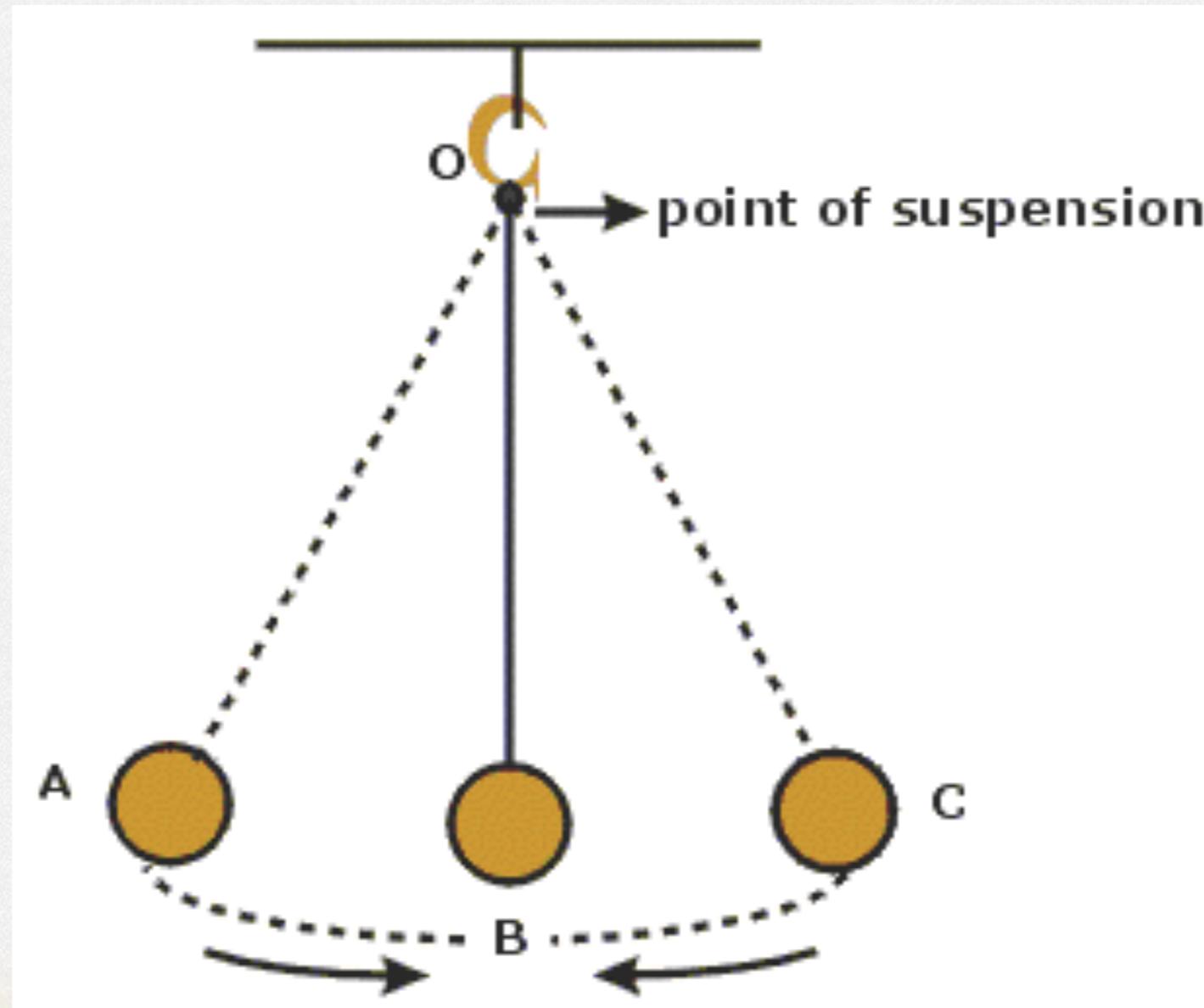
The support at
which a level
pivots



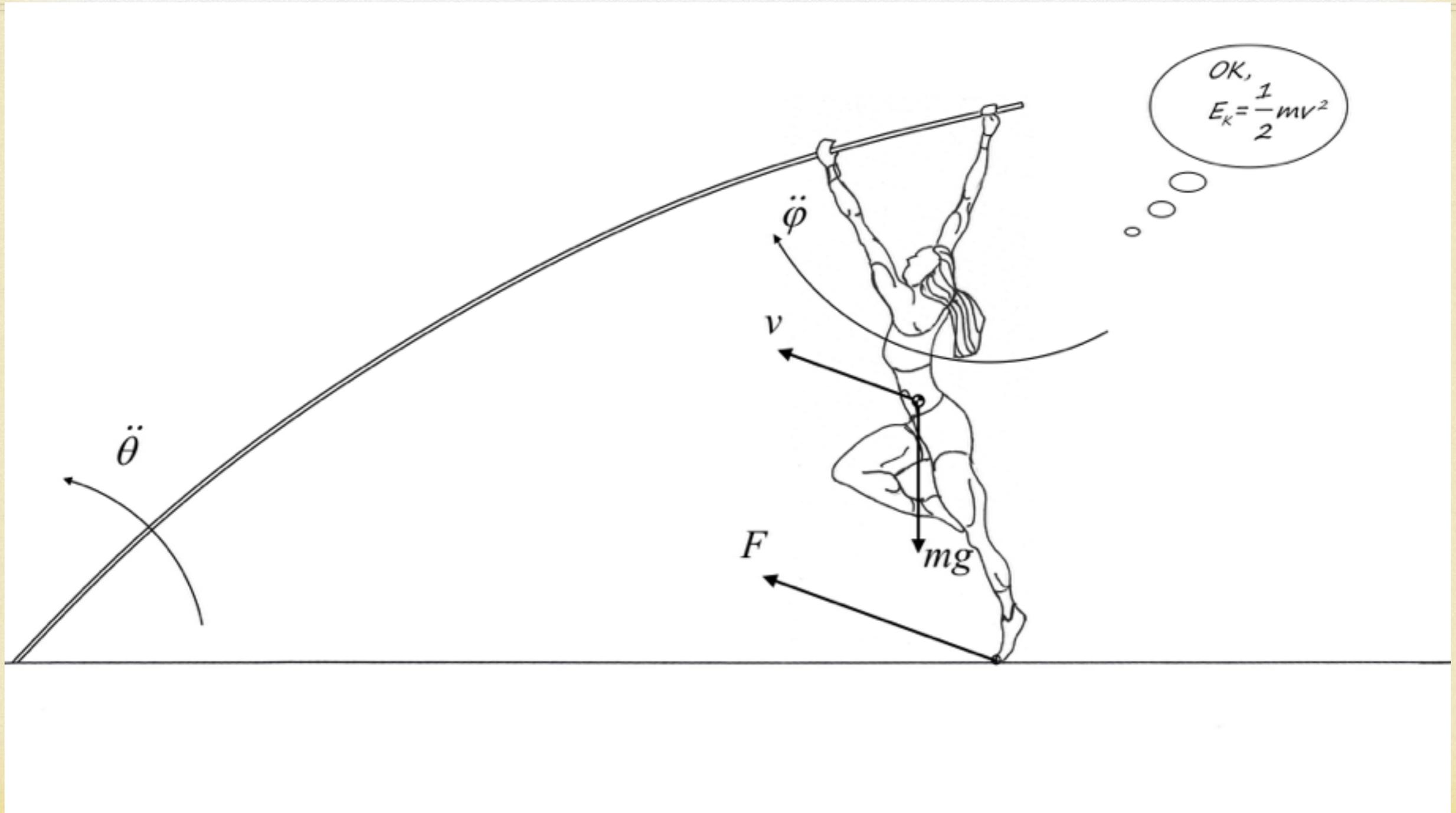


Are girls technical more proficient than boys

PENDULUM

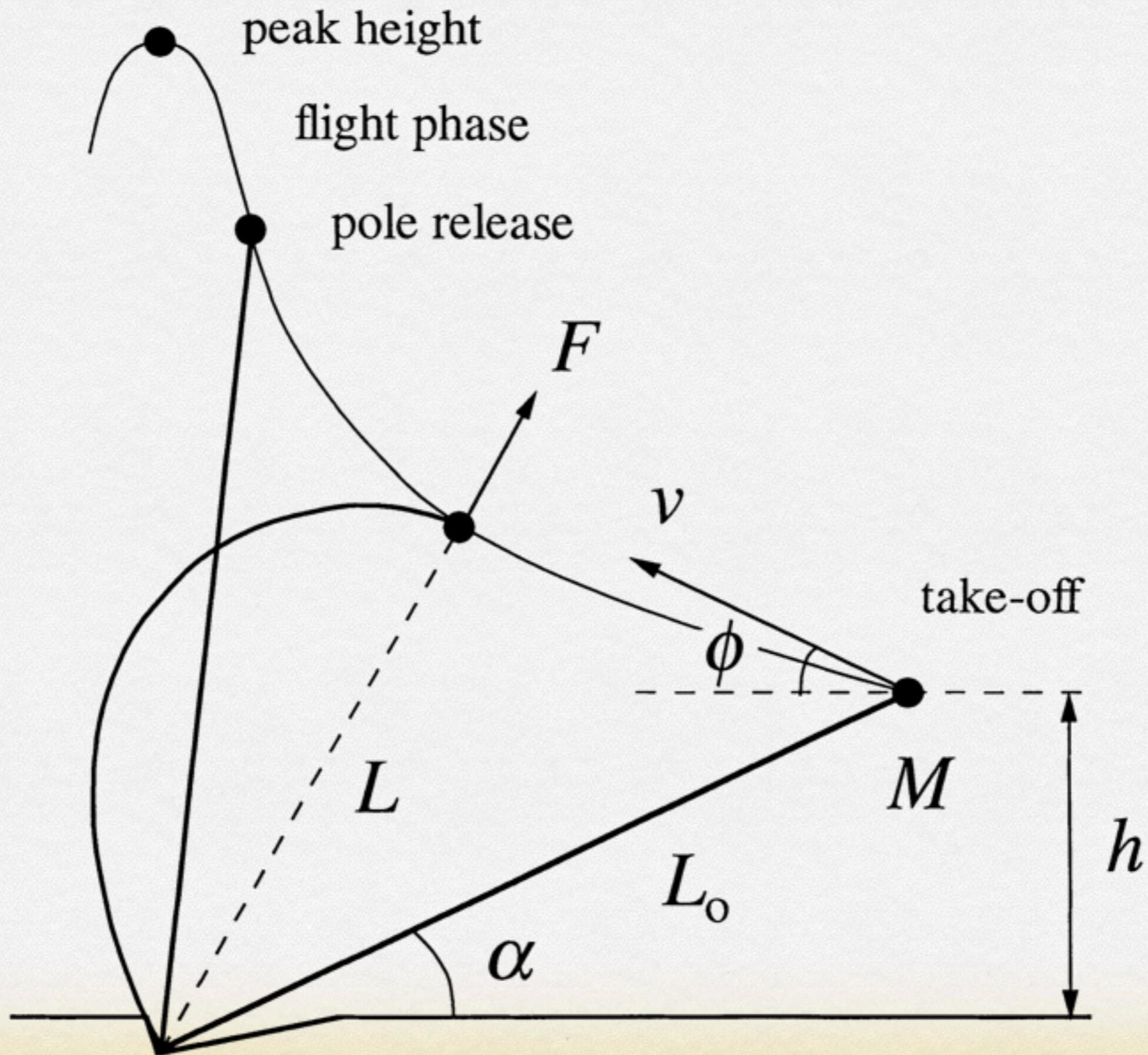


DOUBLE PENDULUM



PENDULUM

- ✱ Double pendulum
- ✱ Sequence of movements
- ✱ Timing
- ✱ Work with the pole not against it



MOVEMENT SEQUENCE

✿ Hands

✿ Chest

✿ Kick

✿ Hands

THANK YOU

Ole Kvist - Photos

Nick Linthorne

Scott Simpson

Dan Pfaff

Frans Bosch

Vern Gambetta

All the pole vaulter coaches I have exchanged ideas with

All the pole vaulters who have allowed me to coach them

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