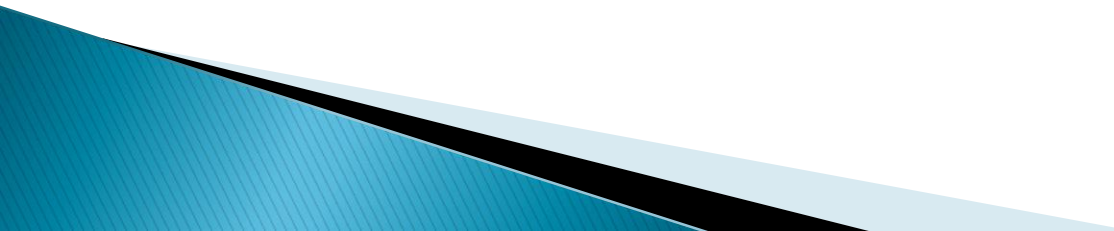


Resistance Training for Youth

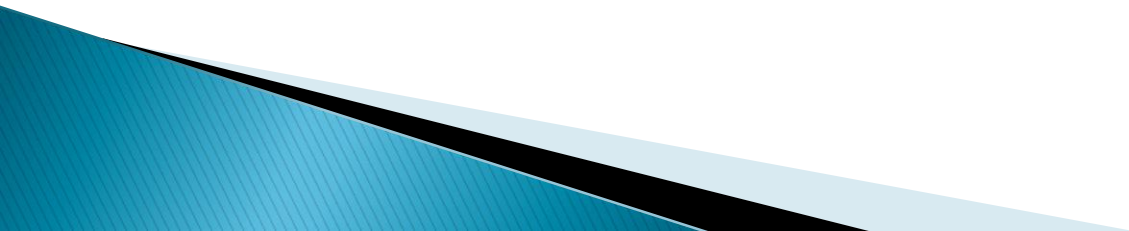
Rob Dickson



MTP's

- ▶ Misconceptions
 - ▶ Benefits
 - ▶ Guidelines
 - ▶ Tips and tricks
 - ▶ Sample workouts
- 

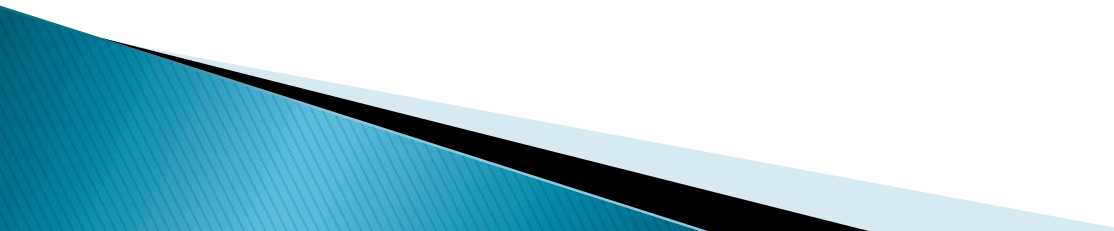
Poll Question 1



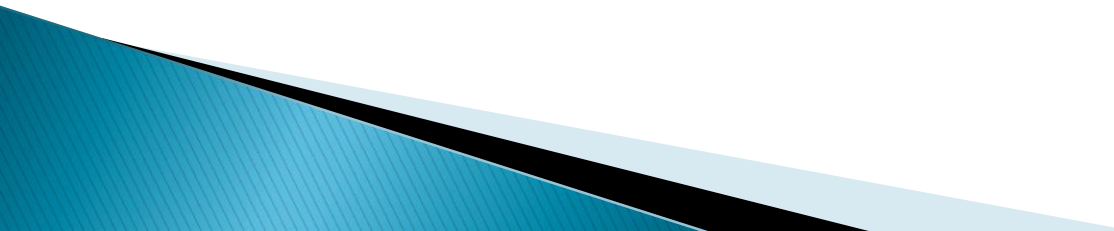
Should youth engage in resistance training ?

- ▶ Common misconceptions still out there:
 - Resistance will stunt their growth.
 - Resistance training is dangerous.
 - Resistance training can cause injury.
 - Resistance training can decrease athletic performance (make them slow)

When can they start.

- ▶ In 2008 CSEP issued a position stand confirming that there is no minimum age for resistance training.
 - ▶ May be appropriate for children as young as 10 years old. (CSEP–2019)
- 

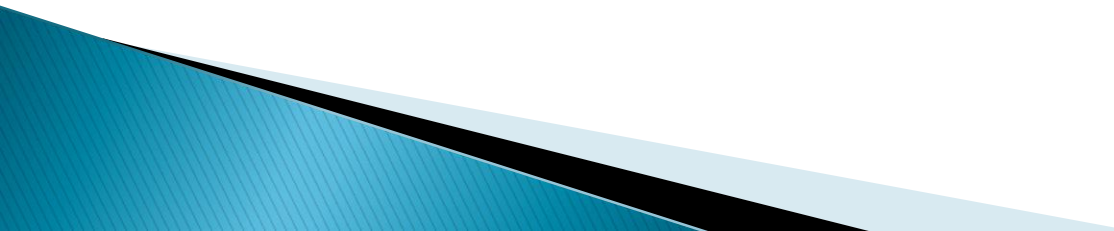
Weights or resistance?

- ▶ Body weight exercises are resistance exercises.
 - ▶ Push ups – Often done incorrectly.
 - ▶ Pull-ups
 - ▶ Dips
 - ▶ Crunches
 - ▶ Other calisthenics
- 

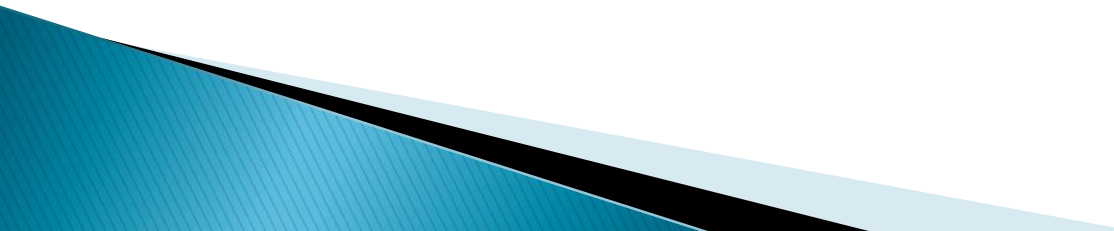
Weights Better than Bodyweight?

- ▶ According to the study published in Journal of Strength and Conditioning Research, the test subjects supported with their hands, on average, 69.16% of their body mass in the up position, and 75.04% in the down position during the traditional push-ups. In modified push-ups, where knees are used as the pivot point, subjects supported 53.56% and 61.80% of their body mass in up and down positions, respectively

Resistance training has many benefits

- ▶ Increase muscle strength, endurance, power and balance
 - ▶ Protect joints and muscles from sport injuries
 - ▶ Improve motor skills
 - ▶ Improve performance in nearly all sports
 - ▶ Stronger bones
 - ▶ Improve confidence and self-esteem
 - ▶ Health benefits
- 

CSEP Guidelines (youth)

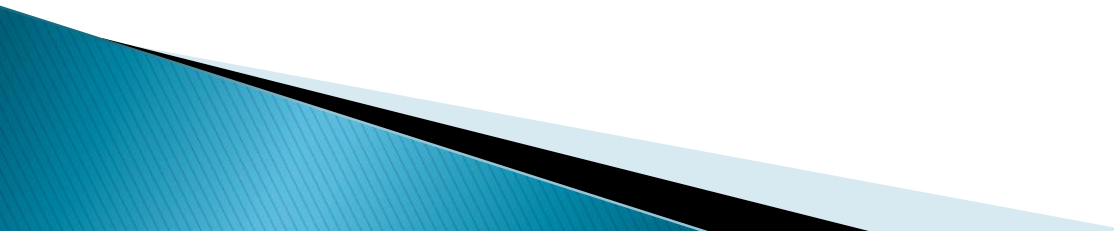
- ▶ Proper warm up
 - ▶ Proper cool down
 - ▶ Appropriate Exercises and sized equipment
 - ▶ Low to moderate intensity
 - ▶ 2–3 times per week
- 

CSEP guidelines continued

- ▶ To Start
 - 1–2 sets
 - 8–15 reps

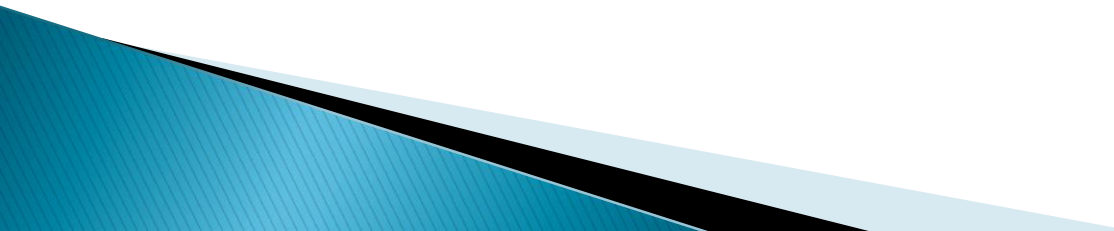
- ▶ Progressing to
 - 4 sets
 - 8–15 reps
 - 8–12 exercises

Picking Exercises

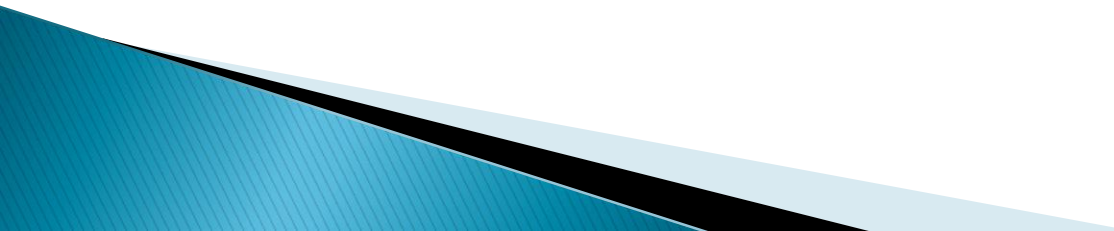
- ▶ Push
 - ▶ Pull
 - ▶ Squat
 - ▶ Lunge
 - ▶ Hinge
 - ▶ Rotation
 - ▶ Jumping & Landing
 - ▶ Core stability (both movement and anti-movement)
 - ▶ Balance
- 

Cost /benefit of exercises

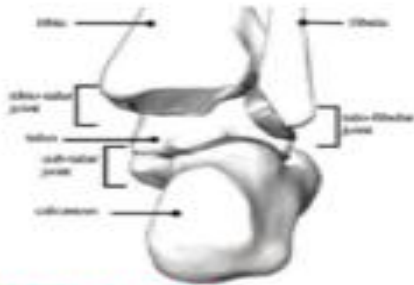
- ▶ There are no bad exercises
 - ▶ Some maybe more appropriate
 - ▶ Some have more risk
 - ▶ There is always another exercise
 - ▶ Likes and dislikes

 - ▶ Eg – Lat pull downs
- 

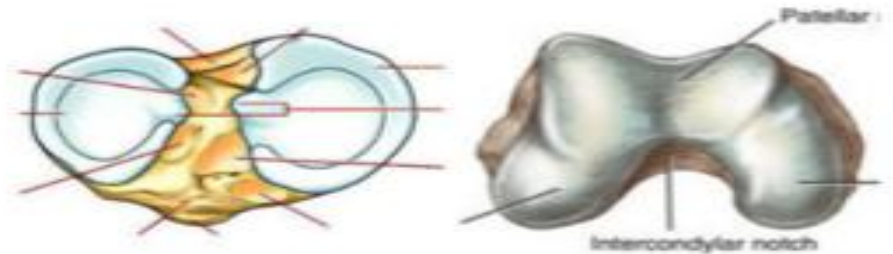
Tips and Tricks

- ▶ Squats – Find your squat stance
 - ▶ Squats and lunges are not hinge movements.
 - ▶ Shoulder retraction when rowing.
 - ▶ Hinging – at the hips not the spine.
- 

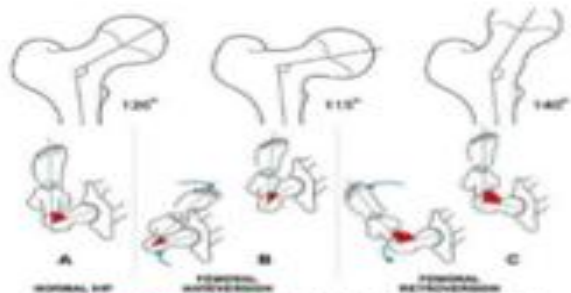
WHY EVERYONE SHOULD SQUAT DIFFERENT



HINDFOOT ANATOMY



KNEE ANATOMY



FEMUR ANATOMY



PELVIC ANATOMY

@THESTRENGTHTHERAPIST

Squats



Squats cotinued



Rowing and Shoulder Retraction



Hinging –RDL/Good mornings/Back extension



Hinging – continued



Warmup

- ▶ General –
 - 40–60% HRmax
 - 10% of total workout time (typically ~5–10 min)

- ▶ Specific –
 - Mimics resistance training exercise
 - Increases neuromuscular efficiency
 - 50% 1RM for 10–15 reps

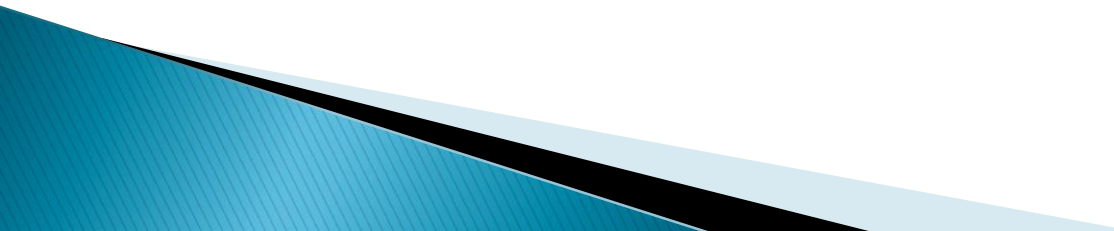
Warm-up continued

- A Run
 - A Skips
 - B Kicks
 - Carioca
 - Side shuffle
 - Leg Swings
 - Frankenstein walks
 - Knees to Chest
- 

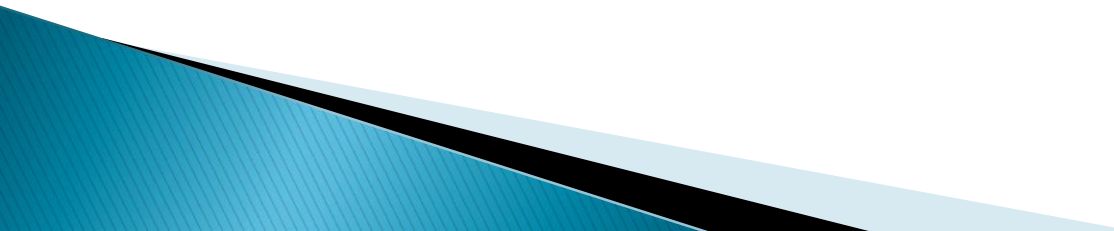
Set Performance

- ▶ Straight Sets
 - ▶ Super Sets
 - ▶ Tri Sets
 - ▶ Giant Sets
 - ▶ Circuits
- 

Circuits

- ▶ Can add in other aspects of fitness
 - ▶ Set up multiple stations
 - ▶ Multiple exercises with same equipment
- 

Notes on circuits

- ▶ Reps 8–15
 - ▶ Sets 1–4
 - ▶ Tempo – Controlled for most exercises (2020)
 - ▶ Add in
cardio/balance/agility/accuracy/coordination
drills
 - ▶ Toss in sport specific skills (basketball,
hockey, soccer, etc...)
- 

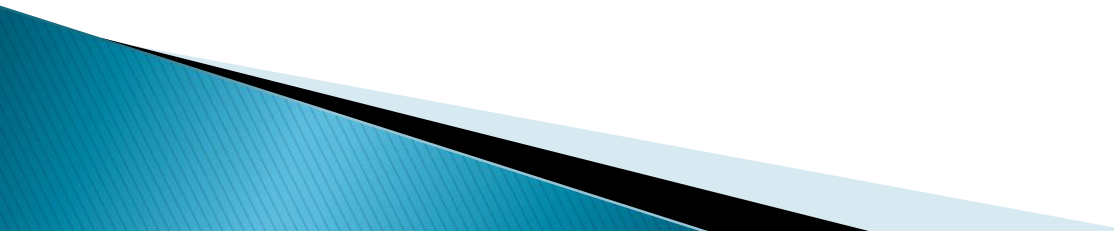
Circuits Depend on

Equipment (variety and type)

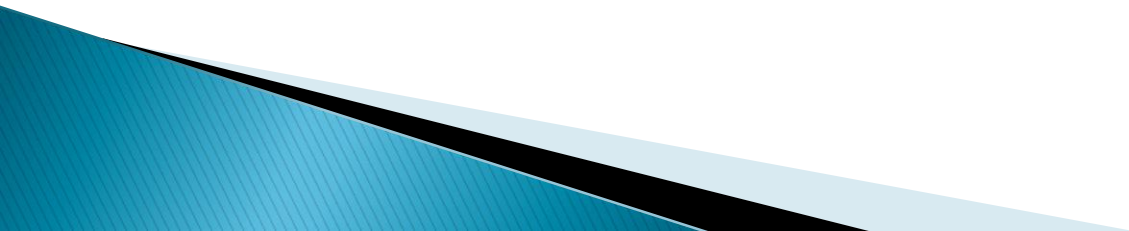
Space (size and make up)



Progressions and Regressions

- ▶ **Pushups** – knees, High plank hold, negative pushups, from toes...
 - ▶ **Plank** – from knees, from toes, one foot elevated...
 - ▶ **Squats** – bench, body weight, goblet, BB back, front...
 - ▶ **Lunges** – stationary, dynamic, walking, reverse, pendulum...
- 

Pooling question #2



Circuits

- ▶ Goblet Squats
- ▶ BB Bench press
- ▶ Hammer Curls
- ▶ Triceps Push downs
- ▶ Cable Row
- ▶ Glute Bridge
- ▶ Step ups
- ▶ DB incline press
- ▶ Twist Curls
- ▶ DB skull crushers
- ▶ SB Hamstring Curls
- ▶ Low Plank

Circuits

- ▶ Bike ride – 80% 90 sec
- ▶ Split squats
- ▶ Seated OHP
- ▶ Pallof Press
- ▶ Kick Backs
- ▶ Hamstring Curls
- ▶ Lap
- ▶ Bench Squats
- ▶ Pull-downs
- ▶ Incline supported row
- ▶ Box Jump
- ▶ High Plank

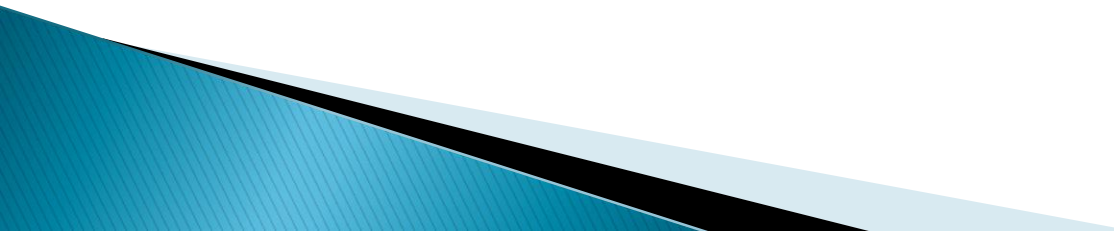
Circuits

- ▶ Stairs
- ▶ Flat DB Press
- ▶ Overhead extensions
- ▶ Lateral Lunges
- ▶ Bent over row
- ▶ MB Slams
- ▶ Incline Bench Press
- ▶ BOSU X over
- ▶ Split squats
- ▶ Lateral Raises
- ▶ Ladder Drill
- ▶ Side Plank

Circuits

- ▶ Skipping
- ▶ Lunges
- ▶ Incline DB Press
- ▶ 1 arm dumbbell row
- ▶ MB Chest Pass
- ▶ Micro Hurdle Drill
- ▶ Jump Squats (unloaded)
- ▶ Front Raises
- ▶ Calf Raises
- ▶ Wrist curls
- ▶ 5-10-5 drill
- ▶ TRX Row

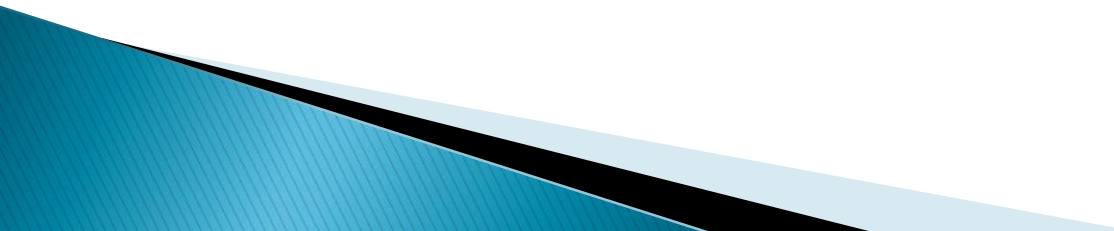
Before hand suggestions

- ▶ Practice exercises before hand
 - ▶ Have progression/regression exercises available
 - ▶ Be familiar with spotting techniques
- 

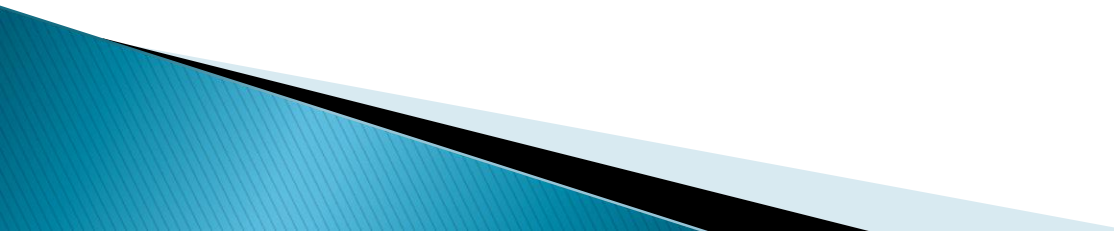
Cool Down

- ▶ Light cardio (bike)
- ▶ Static Stretching
 - All major body parts worked 20–30 seconds per stretch 1–3 sets
- ▶ Foam rolling

Things to keep in mind.

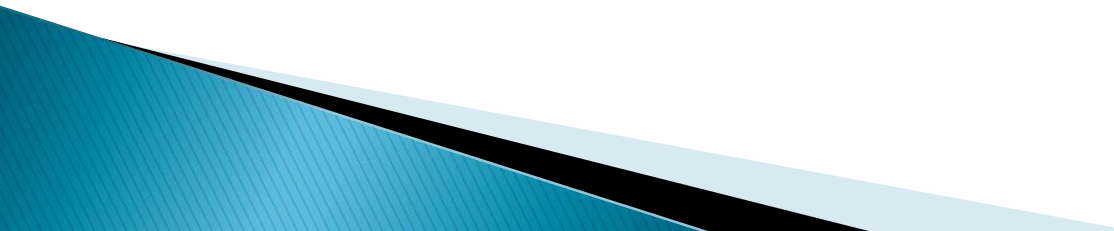
- ▶ Safety
 - ▶ Body Awareness
 - ▶ Form, form, form
 - ▶ Full Range of motion
 - ▶ Go light and do it right!
 - ▶ Machines are fine – good at helping to “find the working muscles” (remember proper sizing and setup)
- 

Can we start now?

- ▶ Depends
 - ▶ Many trainers doing PT online
 - ▶ Focus on form
 - ▶ Get creative with weights (safety first)
 - ▶ Modifying exercises to fit situation.
- 

Need more info

- ▶ Canfitpro – www.canfitpro.com
 - ▶ Alberta/NWT – <http://www.provincialfitnessunit.ca/>
 - ▶ New Brunswick – <http://fitnessnb.ca/>
 - ▶ Nova Scotia – <http://www.nsfitness.ca/>
 - ▶ BC/Yukon – <https://www.bcrpa.bc.ca/>
- 

- ▶ Saskatchewan – <https://www.spra.sk.ca/>
 - ▶ Ontario – <https://ontariofitnesscouncil.com/>
 - ▶ Manitoba – <https://manitobafitnesscouncil.ca/>
 - ▶ Quebec – <https://ataraxia-entraîneur.com/>
 - ▶ YMCA – Search local YMCA
- 

Questions?



- ▶ Rob Dickson
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