

Canadian Centre for Activity and Aging

Leaders in Physical Activity Research and Program Development for Seniors

www.westernu.ca/actage
toll-free: 1.866.661.1603
ccaa@westernu.ca



Muscular Training

This is a sample session
for strength, endurance
& power training
exercises

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Class Design:

- Warm-Up
- Cardio
- Cardio Cool Down
- Muscular Training**
- Balance**
- Flexibility



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Muscular Strength

Amount of force a muscle
can produce in one
maximal contractions

HOW MUCH?

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Muscular Strength

8-12 repetitions

1-2 sets

Resistance, Functional &
Challenging

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Muscular Endurance:

The number of times a muscle can repeatedly contract

HOW MANY?

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Muscular Endurance:

15-20 repetitions

1-2 sets

resistance, functional &
challenging

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Power Training

The production of force and
velocity

Optimal Load & Optimal
Speed will yield maximum
power

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Power Training

6-10 repetitions

1-2 sets

Resistance, Functional &
Challenging

HOW FAST?

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SFIC Mandatory Muscle Groups



- 4 UPPER BODY & 4 LOWER BODY**
- Chest, Upper Back, Abs, Low Back
 - Quads, Hamstrings, Gluts, Calves

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SAFETY:
SFIC STANDARD
Do not Dos
Contraindicated



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Contraindications

- NO hyperextension of the neck
- NO straight or full sit up
- NO double leg lift
- NO toe touches (head below heart)
- NO deep knee bends
- NO high impact
- NO bouncing while stretching
- NO rapid torso twist
- NO lateral flexion beyond 20degrees

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Power Training Clarification

Heavy
Plyometric
Ballistic
Explosive



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Power Training Clarification

- Moderate
- Pre & Post Slow Movements
- Accelerated
- Controlled



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Progression to Power Guidelines

When participants are strong enough to incorporate heavier loads, need more of a challenge

Have completed the Strengthening & Endurance Cycle consistently for 4 weeks before progressing to power

Inactive: 16 weeks

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Progression to Power Guidelines

Active Classes:

Endurance 2 weeks & Strength 2 weeks

Inactive Classes Endurance 8 weeks, Strength 8 weeks

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Progression to Power Recommendations

- For classes offered year around
- Long standing participants (regulars)
- Focus on contracting speed of target muscle group
- Light to moderate resistance

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Progression to Power Recommendations

- Break in session(s) start preparation cycle again
- Not for all classes: high functioning yes



Rotator Cuff: Muscular Endurance



Elbows 90 degrees, holding wand, rotate wand to abdominal area & back

Lunge & Drive: Power

Lunge & Supination: Combo



Lunge position: front knee bent back leg on ball of foot, down in a elevator, drive <power> back leg to hip flexion (quick then stop at wand)

Progression arm above head



In lunge position: hold lunge ,
pronate & supinate wrist/arm
(endurance)

Squat & Pull: Power



From squat position: power to standing while
continuing to pull wand to armpit/chest height
Can continue with over head range of motion
for slow preparation phase

Squat & Press: Power



Start in squat with wand at chest height, grip palms out, power to standing with arms completing shoulder press

Balance & Leg Lift: Power



On one leg with hand in opposing grips in middle of wand, power forward leg lift to wand at waist height, followed by range of motion with arms over head

Squat & Cheer: Power



From squat position wand in one hand, power to one leg and arm overhead

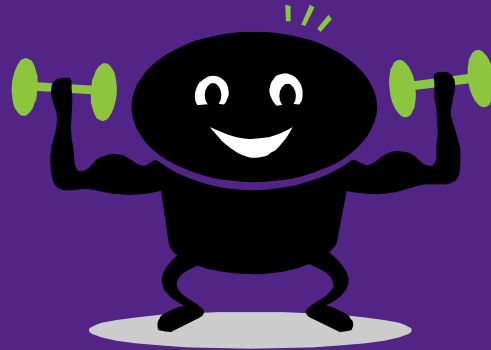
Standing Glut Blast: Power



Wand only for light balance,
extend hip leg lift knee
flexed, power knee & hip
extension

LATERAL LEG LIFT (additional
exercise)

Standing Abs: Endurance



Standing, contract middle, side abs
with arms wrapping motion
Progress to Lift Abs after wrap

Hamstring & Tap: Power



One leg stance hold ball knee height behind as target, power heel to ball slowing down on tap

Overhead Throw & Stop: Power



Standing lunge position ball overhead ready to throw, power to throw release position

Can also use wand for target

CENTRE THROW (additional exercise)

Balance & Ball Squeeze: Endurance



One leg stance ball in two hands waist height, squeeze ball overhead and slowly lower while continuous squeezing

Chest Press with Fists: Combo



Standing ball at chest height with fists, squeeze and release

Heel Raises & Toe Raises: Power



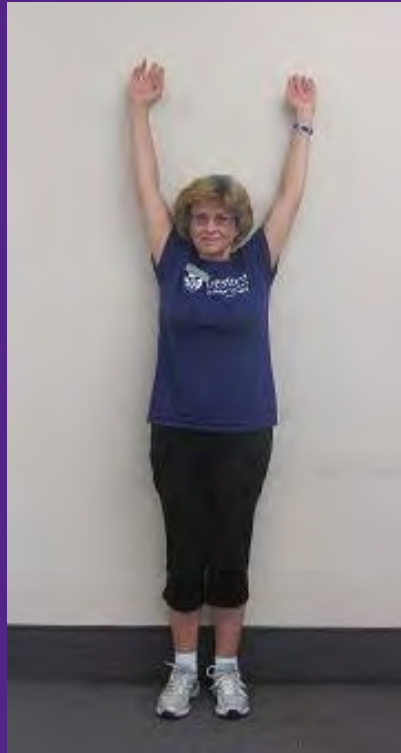
Ball between thighs for alignment wand behind back posture check, power heel raises, power toe raises

Shoulder Adduction & Roll Combo



In standing position, adduct shoulder by squeezing ball, then roll ball with shoulder girdle elevation & depression, repeat

Wall Drag: Endurance



Wall position (head, shoulder blades, buttocks on wall- heels 5cm from the wall), shoulders abducted, elbows 90degrees, drag along wall to over head position and back

Unequal Wall Push Up: Combo



Hands on wall with one hand above chest height & one below, lower to the wall bending elbows and return to start position slowly

Wall Push Up: Power etc

Hands on wall chest height
standing on one leg, power
away from wall with arms off
wall then complete angled
range of motion with
shoulder blade squeeze times
three, then return to start
position on wall



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Focus

Balance

One side at a time

Additional range of motion



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Focus

Speed with controlled stop
Additional range of motion

PRE MOVEMENT

POWER

POST MOVEMENT



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Summary

Sample Exercises

- Using light resistance & body weight
- Options to progress with combining muscular training, balance progression
- Equipment options: weighted vest, theraband, velcro weight on thigh, more than one piece of equipment



Thank you

