



**LIMITLESS**

**GENTLE BUT POWERFUL  
PROGRAM DESIGN**

PRESENTED BY

Presented by Sherri McMillan, M.Sc.

# GENTLE BUT POWERFUL PROGRAM DESIGN

Sherri McMillan holds a Master's Degree in Exercise Physiology and was awarded the 2010 CanFitPro International Fitness Presenter of the Year, 2006 IDEA Program Director of the Year, Inaugural IDEA Personal Trainer of the Year, & 1998 CanFitPro Canadian Fitness Presenter of the Year. She has been in the fitness industry for 32 years and has presented hundreds of workshops to thousands of fitness leaders throughout Canada, Australia, New Zealand, Germany, England, Spain, Mexico, Jamaica, South America, Asia and the U.S.A. She is the Author of 5 Fitness Books and Manuals (Go For Fit - The Winning Way to Fat Loss, Fit over Forty - The Winning Way to Lifetime Fitness, The Successful Trainer's Guide to Marketing, Hiring and Training Master Trainers, and The Business of Personal Training) and is the star of a variety of educational Fitness DVDs. She is a fitness columnist for various newspapers, magazines and journals throughout the world. She is the owner of Northwest Personal Training in Vancouver, Washington which has been awarded the Better Business Bureau's Business of the Year & Chamber of Commerce Community Builder Award

**[nwFitnessEducation.com](http://nwFitnessEducation.com)**

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# My Professional Pet Peeves

- ◆ What happened to the warm-up?
- ◆ Is it necessary to go hard and race every workout?
- ◆ Did we forget effective progression?
- ◆ Every exercise does not need to be a 'full body', integrated movement!
- ◆ Sequencing in a way that excessively loads one area
- ◆ Building the 'pretty muscles' and forgetting the deep, stabilizing musculature
- ◆ The body doesn't respond well from 60 to 0

# Gentle but Power approach...

- ◆ Always warmup – lube the joints, warm the core temperature/CT/muscles, rev the energy systems, low impact to start
  - General ROM – Hip, Knee, Ankle, Shoulder (Wood Chop Squat) Torso, Balance, Rotation...
- ◆ Balance your workouts intensity & type!  
E/M/H, Low/High impact, Different quadrants
- ◆ Progress appropriately
- ◆ Incorporate full body and isolation exercise
- ◆ Alternate areas of heavy load
- ◆ Spend some time isolating the stabilizers & postural muscles
- ◆ Cool down, decompress, release

# Information Gathering for Personal Trainers

- ◆ Current Fitness level and past history
- ◆ Injuries/Special Conditions
- ◆ Understand lifestyle considerations
  - Nutrition, Sleep, Stress
- ◆ Assessment



# Group Fitness Instructors

## We can't be trainers...

- ◆ Teach to the common good
- ◆ Give many options – 3 variations, low/high impact
- ◆ Give permission to modify
- ◆ Learn your group



# TRAINING RESPONSE

- ◆ Training stimulus
- ◆ Structural, biomechanical and physiological adaptation to training
- ◆ Plateau, additional overload or overtraining (extreme & extended muscle soreness, injury/sickness, fatigue or a drop in exercise performance, restlessness, attitude changes, unexplained drops in weight, increase in RHR, cessation of menstrual cycle)

# TRAINING PRINCIPLES

## ◆ Overload Principle

- Manipulate variables including Frequency (point of diminishing returns), Intensity (load/reps/rest), Duration (10-20% increase every 1-2 weeks), Type
- Manipulate frequency & duration before intensity; Base Training first

## ◆ Specificity Principle

## ◆ Variability Principle

## ◆ Individual Differences Principle




# Powerful Program Design Guidelines

- ✦ ACSM Muscle Conditioning Guidelines: 1 set of 8-12 reps for all large muscle groups 2x/week
- ✦ The **repetition** is the key factor in strength exercise. Start with all repetitions **slow, controlled** and use **full, pain-free** range of motion with no muscle substitutions and effective joint articulations. Always stress **quality** vs quantity, **fatigue** vs failure, **overload** vs overtrain. Add speed with body weight or equipment conducive to faster movements. Walk before run!
- ✦ Remember connective tissues! – Poor technique, High speed, High load, High repetitions = Recipe for Disaster
- ✦ Momentary muscle fatigue (not failure)
- ✦ Apply progressive overload – 5-10% increase every 1-2weeks
- ✦ Consider that some may be more prone to repetitive stress injuries so be careful with high repetition training
- ✦ Incorporate full body, multi-joint exercises
- ✦ Incorporate pillars of human movement – Gait/Locomotion (travel through space), Level Changes (unweighting/weighting of body weight), Pulling, Pushing, Torso rotation

# Choosing Movement Type

It is necessary to move from exercises which require the least amount of **proprioception, motor control, stability and joint integrity** to exercises that maximally challenge these skills. This is referred to as **intermuscular coordination** which increases the coordination of the **agonists, antagonists, and stabilizers** to work together in the exercise



# NWPT IDEAL Client Training Progression

## HUNDREDS OF EXERCISE OPTIONS, VARIATIONS & TOOLS!!!

**Expand your Tool Box but progress appropriately!**

### ◆ **Learning & Conditioning Phase**

- Teach technique, posture & alignment, slow speed of movement, muscle sensation & activation, breathing, core stabilization  
Focus on consistency

### ◆ **Progressive Phase**

- Begin to add more dynamic movements, slightly faster movements, more load, movements that require greater balance

### ◆ **Elite Phase**

- Begin to add more impact, more skilled movements, more integrated movements, more speed, more intense movements

# Example

- ◆ Seated chest press
- ◆ Supine chest press with free weights
- ◆ Supine chest press with free weights and legs elevated off bench
- ◆ Supine chest press with free weights lying on an exercise ball



# Example

- ◆ Knee dips
- ◆ Stationary lunges (low, mid, deep range)
- ◆ Dynamic (2 steps to 1 step)
- ◆ Walking lunge
- ◆ Resisted Walking Lunge
- ◆ Jump Lunge



# 90/10 RULE

a **90%** compromise in the joint involved is not worth a **10%** increase in the muscle fiber recruited

- ◆ Deep flies
- ◆ Loaded deep squats/lunges – think progression and consider appropriate depth with high loads?
- ◆ Be cautious of too many pushups, chest flies, overhead shoulder presses, front and lateral shoulder raises and upright rows and the risk to Shoulder Impingement syndrome
- ◆ Be sure to provide modifications for those people who suffer from kyphosis or are at risk for osteoporosis and should not be performing any spinal flexion (crunches/situps)
- ◆ Be sure to tip the balance in favor of stabilization training vs. flexion training
- ◆ Be sure to avoid excessively loading the knees, wrists, shoulders and low back

Looking Good  
& Feeling Great!

## WEEKLY EXERCISE STRUCTURE

Name: \_\_\_\_\_ Start Date: \_\_\_\_\_

Training Phase: \_\_\_\_\_ End Date: \_\_\_\_\_

Goals: \_\_\_\_\_  
\_\_\_\_\_

MON	TUES	WED	THURS	FRI	SAT	SUN

MINIMUM EXERCISE GOAL  
Maintenance

IDEAL EXERCISE GOAL  
Progress

SPECIAL NOTES:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# WEEKLY EXERCISE PLAN

# Muscle Conditioning Staples



Lunges  
Squats  
Step Ups  
Deadlifts  
Rows  
Pull-ups  
Presses  
Bridging  
Planks



Torso rotations  
Back Extensions





# Excellent Lower Body Choices

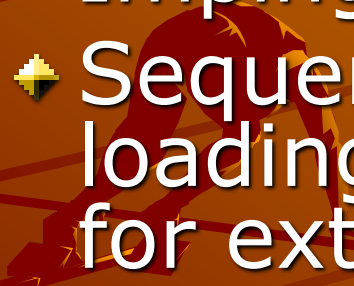
- ✦ Various multi-level forms of lunges
- ✦ Various multi-level forms of squats
- ✦ Various multi-level forms of Step-ups
- ✦ 1 leg dips and pick-ups – straight leg / bent leg
- ✦ Bridging
- ✦ Hamstring Curls
- ✦ Side Stepping (against resistance)
- ✦ Standing Hip Extension (against resistance)
- ✦ Standing Abduction (against resistance)
- ✦ Prone Hip Extensions (with or without resistance)
- ✦ Side-lying Leg Lifts (with or without resistance)
- ✦ Tibialis Presses/Foot curls

- ◆ Note: Be sure to offer less-loaded options for lunges & squats
- ◆ Sequence exercises so you are not loading the knee for extended periods of time

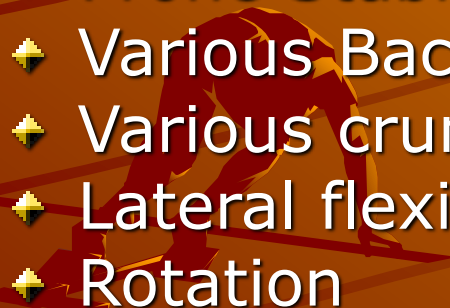


# Excellent Upper Body Choices

- ◆ Seated/Bent over Back Rows
- ◆ Reverse Flies (lunge, kneel, prone)
- ◆ Prone/Supine/Standing Lower/Middle Trap
- ◆ Pushups
- ◆ Chest Presses/Flies
- ◆ Overhead Shoulder Presses
- ◆ Front and Lateral Shoulder Raises
- ◆ Bicep curls (various positions)
- ◆ Tricep extensions (seated, supine)
- ◆ Tricep kickbacks (standing, prone)
- ◆ Tricep Dips
- ◆ External Rotations

- 
- A person in a red shirt and black pants is performing a pushup on a track. The background is a warm orange gradient with curved lines.
- ◆ Note: Be cautious of too many pushups, chest flies, overhead shoulder presses, front and lateral shoulder raises and upright rows and the risk to Shoulder Impingement syndrome
  - ◆ Sequence exercises so you are not loading the wrist and/or shoulder for extended periods of time.

# Excellent Core Exercises

- ◆ Seated Stabilization choices - Vsits
  - ◆ Various Supine Stabilization choices – Dead bug variations
  - ◆ Bridging
  - ◆ Prone Stabilization - Planks
  - ◆ Various Back extension choices
  - ◆ Various crunch/situp choices
  - ◆ Lateral flexion or stabilization
  - ◆ Rotation
- 
- A silhouette of a person performing a dead bug exercise on a mat. The person is lying on their back with their knees bent and feet flat on the floor, holding their feet with their hands. The background is a gradient of orange and yellow with curved lines.

- ◆ Note: Be sure to provide modifications for those people who suffer from kyphosis or are at risk for osteoporosis and should not be performing any spinal flexion (crunches/situps)
- ◆ Be sure to tip the balance in favor of stabilization training vs. flexion training
- ◆ Sequence exercises so you are not loading the lower back for extended periods of time.



# Strengthen as a minimum

## Shoulder area:

- ◆ Middle and Lower Trapezius
- ◆ External Rotators

## Hips (strong hips equates with stronger knees & back)

- ◆ Gluteals in end ROM (fully extended lunges/squats/steps, KB swings, bridging)
- ◆ Isolation of Gluteus medius – 1 leg exercises, resisted lateral movement, side lying left lifts

## Knees:

- ◆ Stack joints, progress depth of movements that involve knee, try wider stance if having issues, Vastus medialis (full extension)

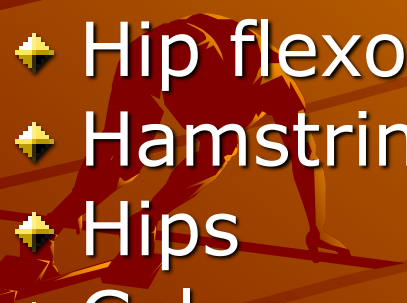
## Core Conditioning:

- ◆ Spinal stabilization, rotation, extension, flexion, lateral flexion

## Foot/Lower Limb:

- ◆ Barefoot, Foot/Toe lifts, Resisted ankle ROM, Towel crunches...

# Release/Lengthen as a minimum

- ◆ Internal rotators of the shoulder (pec major, minor)
  - ◆ Scapular elevators (Upper traps, levator scapular)
  - ◆ Lats
  - ◆ Hip flexors
  - ◆ Hamstrings
  - ◆ Hips
  - ◆ Calves
  - ◆ Into back extension (thoracic region)
- 



# IDEAL 1 Hour NWPT Full Body Training Session

- ◆ Client arrives early to session to complete general system warm-up
- ◆ First 5 minutes of session – general ROM & Mobility warm-up and physical prep for session (evaluate 'today's body', check up on homework)
- ◆ 3-6 Full Body Integrated Movements/Cardio/Metabolic/Agility Drills
- ◆ 1-4 Compound Lower Body Movements (Squats, Lunges, Step Ups, Deadlifts, 1 Leg Dips)
- ◆ 2-4 Compound/Isolated Pulling Movements (Chin-ups, Rows, Pulldowns, Reverse Flies)
- ◆ 1-3 Compound Pressing Movements (Pushups, Chest Press, Overhead Shoulder Press)
- ◆ 2-3 isolating arms
- ◆ 1-2 Bridging Exercises
- ◆ 1-2 Hip Stabilizer Exercises (Resisted Side Steps, Adduction, Side Lying Exercises)
- ◆ 1-2 Middle/Lower Trapezius/ External Rotator Exercises
- ◆ 2-3 Spinal Stabilization Exercises
- ◆ 1 Spinal Flexion Exercise
- ◆ 1 Lateral Spinal Flexion Exercise
- ◆ 1 Spinal Rotation Exercise
- ◆ 1 Spinal Extension Exercise
- ◆ Total 20-30 Exercises
- ◆ Last 5-10 minutes of session spent cooldown/stretching/muscle release/Lifestyle Coaching/Action Steps

# 4Q Training

LOADED

## Classic Resistance Training

eg:  
Bench Press  
Olympic Lifting  
Squats  
etc

## Loaded Movement Training

eg:  
Movement based resistance work

LINEAR/  
RECURRING  
MOVEMENT

TRANSITIONAL/ 3D  
VARIABLE  
MOVEMENT

## Unloaded Linear Conditioning

eg:  
Therapeutic Rehab  
Self Myofascial release  
Running

## Unloaded 3D Conditioning

eg:  
SAQ Training  
Functional Rehab  
Yoga

UNLOADED

# Gentle but Powerful approach to sequencing

There is no **perfect** training program

One study found no statistically significant difference in the strength increase produced by 9 different training routines. Another study in Journal of Strength and Conditioning Research found athletes who changed their program every month could lift an average of 10% more than those who didn't.

Same client/same goal/20 different personal trainers = **20 different** programs

# Gentle Sequencing

- 1 set training – alternating lower/upper, Pre-exhaust/Post-exhaust training
- Multiple Set Training – supersetting
- Workout templates to assure a balanced and effective workout



# Template Example 1

- ◆ Warmup

- ◆ Workout

  - Lower Body exercise

  - Upper Body exercise

  - Torso Exercise

- Repeat 5-8x with different exercises

- ◆ Cool-down and stretch



# Template Example 2

◆ Warmup

◆ Workout

- Lower body exercise
- Upper body exercise
- Agility/Balance/Cardio exercise drill
- Repeat 5-7x with different exercises

◆ 5-10 minutes on Core conditioning and Posture Development

◆ Cool-down and stretch



# Template Example 3

◆ Warm-up

◆ Workout

- Compound (or isolated) lower body exercise
- Compound (or isolated) upper body exercise
- Compound full-body movement
- Balance/Agility/Cardio drill
- Repeat 3-5x with different exercises

◆ 5-10 minutes on Core Conditioning and Posture Development

◆ Cool-down and stretch



# Template Example 4

## ◆ Warm-up

- 3 minute cardio segment
- Compound lower body exercise
- Compound upper body exercise
- Compound full-body movement
- Upright torso movement
- Balance drill
- Repeat 3-5x with different exercises

## ◆ Cool-down and stretch





# Template Example 5

## ✦ Warm-up

- Lower Body exercise
- Upper Body exercise
- Lower Body exercise
- Upper Body exercise
- 1-3 minute Cardio/Agility/Balance
- Repeat 4-6x with different exercises

## ✦ Cool-down and stretch



# PUTTING IT ALL TOGETHER

- ◆ Minor adjustments each workout
  - Reps, resistance, small changes to program
- ◆ Major changes every 4-8 week



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