

Reference Guide Practical Application for Lower Body Work

Created for New Mexico University
Employees and Family
Brown Bag Luncheon Series
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Guide

- The following guide is not all encompassing and only provides a select variety of lower body exercises
- The intent of this handout is to allow you to:
 - Experience different movements
 - Allow you the versatility of incorporating specific exercises into your daily exercise programs or during the regular work day

Presented by Dr. J.M. Berning, Exercise Physiologist - NMSU

Equipment and Costs

- Free
- Weight Rooms
- Broom Stick Handles
- Balls/Walls
- Backpacks
- Rubber Bands (Theraband)
- Chains

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Safety

Appropriate use of the lower body requires utilizing an appropriate posture during movement and lifting (lifting anything)

Key points

- Head up
- Back Straight (chest out)
- Butt Back and Out
- Bend at the hips and knees
- Lift towards the ceiling
- Solid foot stance
- Keep weight close to the body when lifting

The Chicken Stance*

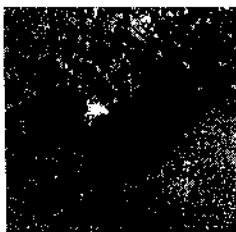
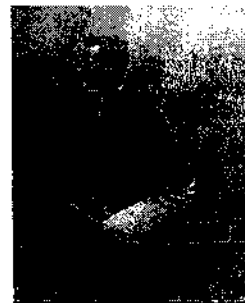


Figure 2- Vertical weight force with equal

*Phrase coined by Dr. Berning

Practical Application



SOLAR

Practicing the Chicken Stance

(5 repetitions)

Activity 1

- Start from the base (bottom up)
- Stance (Foot Placement)
- Legs Vertical
- Posture (Head, Neck, Back Hips)
- Arms to the Front
- Move at the Hips First
- Lower your Body Slowly

Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

Types of Lower Body Exercises

1. Back Squats
 - Bar-Plastic Pipe
 - Wide Stance and Parallel Stance
 - Bench-Chair-Table Squats
2. Front Squats
 - Wide Stance and Parallel Stance
3. Overhead Squats
4. Hack Squats

Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

5. Dumbbell Squats
6. Wall Squats
7. Stability Ball Squats
 - With or without dumbbell weight
8. Split Squats (One Legged Squats)
 - W/O Weights
 - With Dumbbells
 - With Bar
 - With Bench or Ball
9. Lateral Squat
 - Without Weight
 - With Ball

Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

Back Squat Positions

Activity 2

3 Types

(2-3 repetitions each)

Place a plastic tube on your back

1. Parallel Stance
2. Wide Stance: This can be difficult and increases stress on the hips
3. Shoulder Width Stance (Toes pointed slightly outward)

Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

Back Squats



Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

Wide Stance

vs.

Parallel Stance



Presented by Dr. J.M. Bowling, Exercise Physiologist (1992)

Bench-Chair-Table Squats (2-3 repetitions)

Activity 3

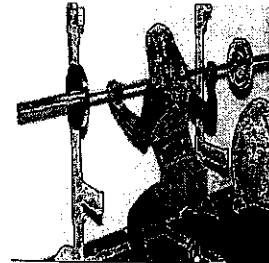
Practice Box-Chair-Table Squats

– No Hands – Use the lower body

- Try a variety of stances using the Chair or Table
- **Caution:** Do not sit down, simply touch the chair and ascend

Presented by Dr. J.H. Seung, Exercise Physiologist - MEdU

Bench-Chair-Table Squats



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Front Squats (2-3 Repetitions Each)

Activity 4

Front Squats

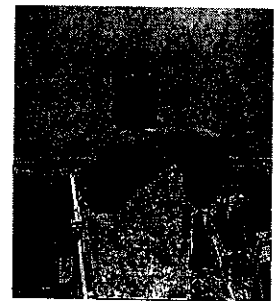
- Arms Crossed
- Olympic Hold (Hold Plastic Pipe)

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Front Squats



Olympic Grip



Crossed Arms

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Overhead Squat (2-3 Repetitions Each)

Activity 5

The Overhead Squat is an Exceptionally Difficult Movement (Use Caution)

Overhead Squats

- Use the Plastic Pipe
- Keep Hand Grip Wide and Arms Extended
- Descend Slowly, Transition Smoothly and Ascend Slowly

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Overhead



Overhead Squat

Dumbbell Squats

Activity 6

(2-3 repetitions)

- Maintain the chicken stance
- Hold a weight (dumbbell) in each hand
- Squat down and then up

Dumbbell Squats



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Wall Squats

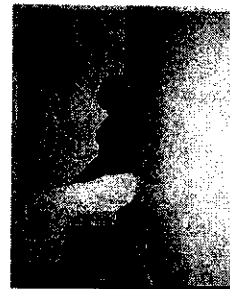
Activity 7

(3-5 repetitions)

- Wall Squats
 - Sliding Wall Squats
- Keep Posture Erect
- Ensure Legs are Vertical
- Ensure Feet Don't Slip on Floor

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Wall Squats



Wall Squat (aka wall slides)

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Split Squats (Lunges)

Activity 8

(2-3 repetitions each leg)

Split Squats

- Without weights (hands on hips)
- Keep lower leg vertical
- If needed, use table as a support and assist

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Split Squats

Presented by Dr. J.M. Serrano, Exercise Physiologist - NSDU



Similar to a Lunge – Can be performed on box and with dumbbells

Lateral Squats

(2-3 repetitions each leg)

Activity 9

Lateral Squats

- From a parallel position step sideways and descend vertically downward
- You can hold a ball or plastic pipe in your hands in front of you for stabilization
- You can also hold the plastic pipe above your head with a wide hand grip

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982

Lateral Squats

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982



Can be performed with weights and/or with a foot on a box

Mobile Lunges

(Move Across the Room)

Activity 10

Mobile Overhead Bar Lunge

- Step out so leg is vertical (Prevent knee from extending beyond your toes)
 - Lower yourself down
 - Keep Bar (Plastic pipe overhead)
 - Keep torso upright (Don't lean forward)
- A variety of methods can be performed with this exercise. Lateral movement, linear movement and reverse movements

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982

Basic Lower Body Exercise Program Guidelines

Beginning program

- 2-3 exercises (pick various exercises)
- 2-3 sets per exercise
- 4-8 repetitions per set (goal=8-12 repetitions/set)
- 2-3 x week
- 1-2 days rest between exercise days

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982

Basic Lower Body Exercise Program Guidelines

Maintenance Program

- 3-4 different exercises
- 3-4 sets per exercise
- 8-12 repetitions per exercise
- 2-3 x week
- 1-2 days rest between exercise days

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982

Basic Lower Body Exercise Program Guidelines

Alternative Program

- 3-4 different exercises
- Perform a set on one exercise then another then another then another until you return to the original exercise. Then start again after resting
- 3-4 sets per exercise
- 8-12 repetitions per exercise
- 2-3 x week
- 1-2 days rest between exercise days

Presented by Dr. J.H. Serrano, Exercise Physiologist - 1982