

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

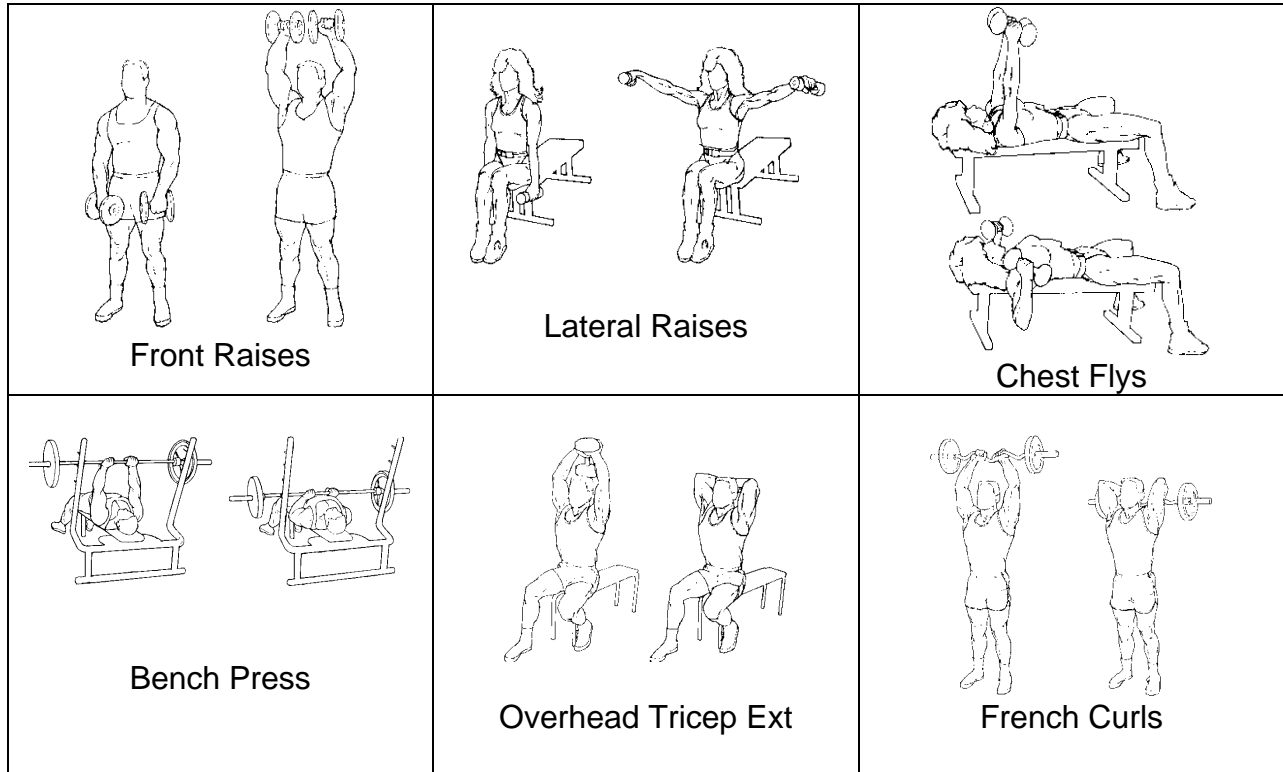
WEIGHT LIFTING PROGRESSION

ACROMIOPLASTY WITH DISTAL CLAVICLE RESECTION, ROTATOR CUFF REPAIR (POST OPERATIVE)

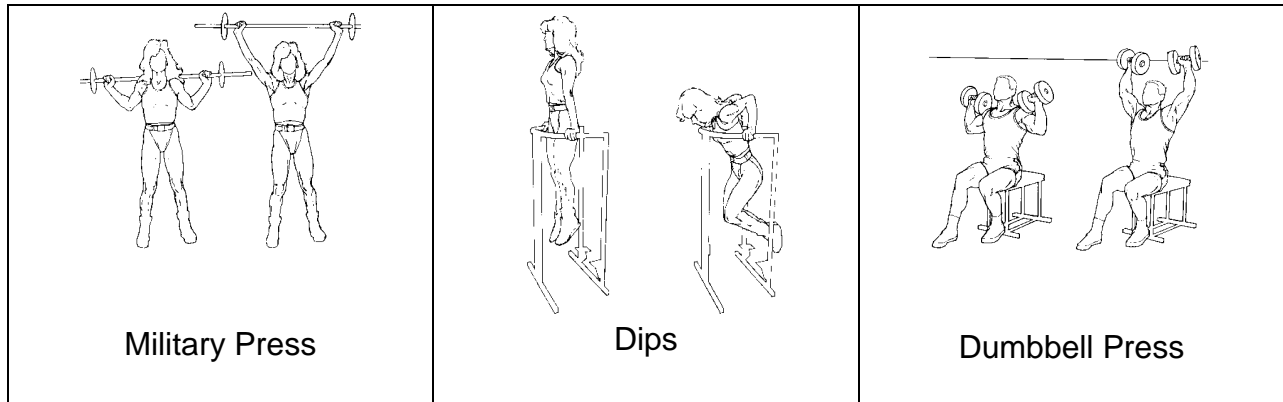
A. CONTRAINDICATED EXERCISES FOR PHASE I- (ILLUSTRATED BELOW)

- Front Raises, lateral raises, chest flys,
- Bench press, overhead tricep extensions, French Curls
- Overhead or military press, dips, dumbbell press
- Push press, push jerk, split jerk (not pictured)

DO NOT DO:



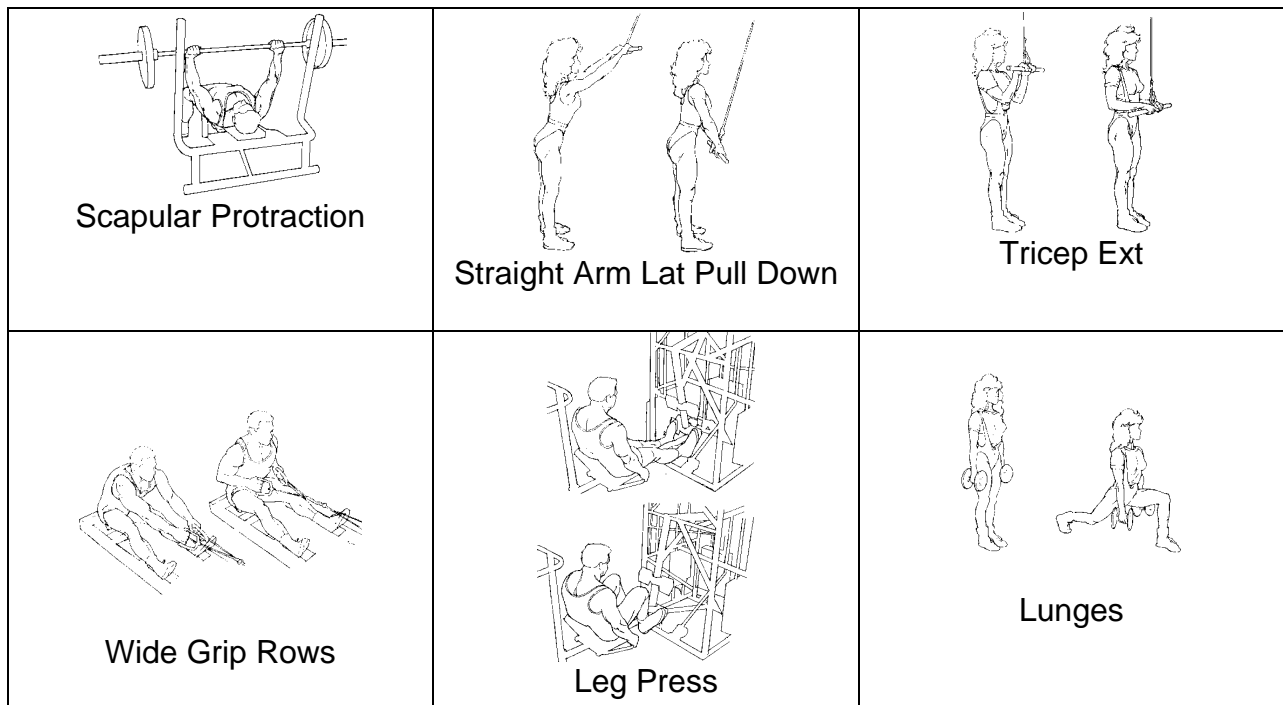
UNIVERSITY OF DELAWARE PHYSICAL THERAPY



B. SUBSTITUTION CORE EXERCISES (ILLUSTRATED BELOW)

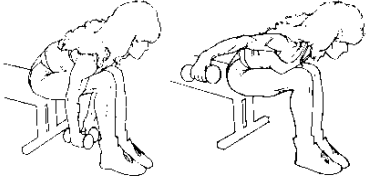
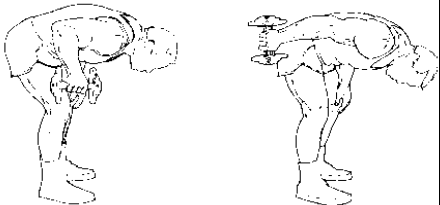

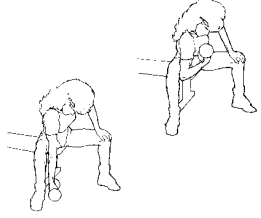
- Scapular Protraction on Smith Machine or Universal
- Straight Arm Lat Pull down
- Tricep Extension Progression
- Wide Grip Rows
- Leg press or lunges

*** May begin substitution phase following full shoulder PROM and abiding by soreness rules on page 19



UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Accessory Exercises:

<p>Reverse Deltoid Fly</p>  The illustration shows two views of a person performing a Reverse Deltoid Fly. On the left, the person is seated on a chair, leaning forward with their torso nearly parallel to the floor. Their arms are extended straight back, parallel to the floor. On the right, the person is in the same seated, leaning position, but their arms are bent at the elbows, with their hands held close together behind their back, and their forearms are parallel to the floor.	<p>Dumbbell Tricep ext</p>  The illustration shows two views of a person performing a Dumbbell Tricep extension. On the left, the person is standing and leaning forward with their torso nearly parallel to the floor. They are holding a dumbbell with both hands, with their arms extended straight back. On the right, the person is in the same leaning position, but their arms are bent at the elbows, with their hands held close together behind their back, and their forearms are parallel to the floor.
<p>Seated Scapular Depression</p>  The illustration shows a person sitting on a chair, viewed from the side. They are leaning forward with their torso nearly parallel to the floor. Their arms are resting on their thighs, and their hands are placed on the seat of the chair. This exercise focuses on depressing the scapulae.	<p>Concentration Curls</p>  The illustration shows two views of a person performing Concentration Curls. On the left, the person is seated on a chair, leaning forward with their torso nearly parallel to the floor. They are holding a dumbbell with both hands, with their arms extended straight back. On the right, the person is in the same leaning position, but their arms are bent at the elbows, with their hands held close together behind their back, and their forearms are parallel to the floor.

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

ACROMIOPLASTY WITH DISTAL CLAVICLE RESECTION, ROTATOR CUFF REPAIR (POST OPERATIVE)

Substitution- Phase I- Exercises

Goals Phase I: Prepare the upper extremity for more intense strengthening;
Time Frame: 8 wks or per MD orders (progressed on an individualized basis)

<p><u>Step 1</u></p> <p><u>Core Exercises</u></p> <p>Scapular Protraction Receive the bar in a normal bench press position (hands slightly less than shoulder width apart) with the elbows locked. Push the bar straight up using the shoulder and chest and round the shoulders (no bending elbows or wrists). Movement range is small. Alternate an overhand (palms turned downward) grip with an underhand grip (palms turned upward) every other set.</p> <p>Straight Arm Lat Pulldown Assume normal front lat pulldown position. Take shoulder width grip in underhand position (palms facing upward). Lean back to a comfortable position. Lock elbows and wrists. Squeeze shoulder blades together and pull bar down with just upper back muscles. Elbows and wrists remain locked.</p> <p>Tricep Extension with Lat Pull Down Bar</p> <p>Wide Grip Rows</p> <p>Leg Press or lunges</p> <p><u>Program Design</u>- 3 sets x 10 reps at 60%</p>	<p><u>Accessory Exercises (Steps 1-5)</u></p> <p>Rear Deltoid Raises Scapular Depression with Assisted or Seated Dip Machine Concentration Curls</p> <p><u>Program Design</u> - 3 sets x 8 reps</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

<p><u>Step 2</u></p> <p>Repeat same exercises</p> <p><u>Program Design</u> 4 sets x 10 reps at 60%</p>	
<p><u>Step 3</u></p> <p>Repeat same exercises</p> <p><u>Program Design</u> 5 sets x 10 reps at 60%</p>	
<p><u>Step 4</u></p> <p>Repeat same exercises as previous step - addition of Tricep Extensions with dumbbell</p> <p><u>Program Design</u>- 5 sets x 10 reps at 65%</p>	
<p><u>Step 5</u></p> <p>Repeat same exercises as previous step</p> <p><u>Program Design</u>-5 sets x 10 reps at 65%</p>	

<p><u>Step 6</u></p> <p><u>Core Exercises</u></p> <p>Scapular Protraction Straight Arm Lat Pulldown Supine Tricep Extensions (Nose breakers) Tricep Extension with Lat Pull Down Bar Wide Grip Rows</p>	<p><u>Accessory Exercises (Steps 6-8)</u></p> <p>Rear Deltoid Raises Scapular Depression with Assisted or Seated Dip Machine Tricep Extensions with dumbbell Concentration Curls</p> <p><u>Program Design</u> - 3 sets x 8 reps</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Leg Press or lunges

Program Design- 4 sets x 10 reps at 70%

Step 7

Same exercises as previous step

Program Design - 5 sets x 10 reps at 70%

Step 8

Same exercises as previous step

Program Design- 5 sets x 8 reps at 75%

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

ACROMIOPLASTY WITH DISTAL CLAVICLE RESECTION, ROTATOR CUFF REPAIR (POST OPERATIVE)

Phase II—Exercises

Goals: Full ROM Bench Press, Lat Pull Down, High Pulls

Time Frame: 2.5-5 weeks (lift 2-3x/week with 1-2 days rest between workouts; follow soreness rules on page 19)

<p><u>Step 9</u></p> <p><u>Core Exercises</u></p> <p>Bench Press Receive the bar in a normal bench press position (hands slightly less than shoulder width apart) with the elbows locked. Push the bar straight up using the shoulder and chest and round the shoulders (no bending elbows or wrists). Movement range is small. Alternate an overhand (palms turned downward) grip with an underhand grip (palms turned upward) every other set.</p> <p>Lat Pull down Assume normal front lat pulldown position. Take shoulder width grip in underhand position (palms facing upward). Lean back to a comfortable position. Lock elbows and wrists. Squeeze shoulder blades together and pull bar down with just upper back muscles. Elbows and wrists remain locked.</p> <p>Power Clean Lift bar off a waist-level rack using a power clean grip. Lower the bar to mid thigh with the knees bent and shoulders slightly in front of the bar. Extend the legs and back, then shrug the bar with a quick powerful motion. The elbows remain straight throughout the movement.</p>	<p><u>Accessory Exercises</u></p> <p>Straight Arm Lat Pulldown Seated Rows Tricep Extensions using lat pull down machine Lateral and Front Deltoid Raises Concentration Curls</p> <p><u>Program Design</u>- 3 sets x 8 reps</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

<p>Back Squat High bar squat, modified center of gravity bar or stingray</p> <p>Shoulder Press – Functional Isometrics at 60 and 90 degrees Using a squat rack or Smith Machine, lock bar in front shoulder press position in place so elbows are below shoulder level and perform isometric contractions (30 times contract 5 seconds). Move bar up so elbows are even with shoulders and perform isometric contractions (30 times contract 5 seconds).</p> <p><u>Program Design</u> - 3 sets x 10 reps at 65% of 1 Rep Max</p>	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p><u>Step 10</u></p> <p><u>Core Exercises</u></p> <p>Partial Bench Press using underhand grip <i>(Always warm up with straight arm bench press)</i> Place a 6 inch towel roll under T shirt before assuming normal bench press position. Assume a underhand grip (palms turned upward) with hands slightly less than shoulder width apart. The bar is lowered until it touches the towel then pressed to the starting position.</p> <p>Lat Pull Down Shrugs with overhand grip Assume normal front lat pulldown position. Take shoulder width grip in overhand position (palms facing downward). Lean back to a comfortable position. Lock elbows and wrists. Squeeze shoulder blades together and pull bar down with just</p>	<p><u>Accessory Exercises</u></p> <p>Straight Arm Lat Pulldown Seated Rows Tricep Extensions with lat pull down machine Lateral and Front Deltoid Raises Concentration Curls</p> <p><u>Program Design</u> -3 sets x 8 reps</p>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

<p>upper back muscles. Elbows and wrists remain locked.</p> <p>Power Clean – Power Pull from above the knee</p> <p>Lift bar off a waist-level rack using a power clean grip. Lower the bar to a position just above the knees with the shoulders slightly in front of the bar. Extend the legs and back, shrug the bar with a quick powerful motion, then complete the shrug by pulling the bar into an upright row position.</p> <p>Back Squat</p> <p>High bar squat, modified center of gravity bar or stingray</p> <p>Shoulder Press – Functional Isometrics at 60 and 90 degrees</p> <p>Using a squat rack or Smith Machine, lock bar in front shoulder press position in place so elbows are below shoulder level and perform isometric contractions (30 times contract 5 seconds). Move bar up so elbows are even with shoulders and perform isometric contractions (30 times contract 5 seconds).</p> <p>Program Design – 4 sets x 10 reps at 65% of 1 Rep Max</p>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p><u>Step 11</u></p> <p><u>Core Exercises</u></p> <p>Partial Bench Press using normal grip <i>(Always warm up with straight arm bench press)</i></p> <p>Place a 6 inch towel roll under T shirt before assuming normal bench press position. Assume an overhand grip (normal grip) with hands slightly less than shoulder width apart. The bar is lowered until it touches the towel then pressed to the starting position.</p>	<p><u>Accessory Exercises</u></p> <p>Straight Arm Lat Pulldown Seated Rows Tricep Extensions with lat pull down machine Lateral and Front Deltoid Raises Concentration Curls</p> <p><u>Program Design</u>- 3 sets x 8 reps</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Partial Lat Pull Down with underhand grip

Place a 6 inch towel roll under T shirt before assuming normal lat pulldown position. Assume an underhand grip (palms turned upward) with hands slightly less than shoulder width apart. Lean back to a comfortable position. Initiate movement by squeezing shoulder blades together then pull bar down until it touches the towel roll. Return to starting position.

Power Clean

Begin with the bar at mid shin level. Mid shin level should be attained through the use of bumper plates or wooden practice plates using a power clean grip. During the initial phase the bar is lifted from the floor and the athlete moves through a normal power clean motion finishing in an upright row position. **Do not** rack the bar.

Back Squat

High bar squat, modified center of gravity bar or stingray

Shoulder Press – Functional Isometrics at 60, 90 and 120 degrees

Using a squat rack or Smith Machine, lock bar in front shoulder press position in place so elbows are below shoulder level and perform isometric contractions (30 times contract 5 seconds). Move bar up so elbows are even with shoulders and perform isometric contractions (30 times contract 5 seconds).

Program Design- 5 sets x 10 reps at 65% of 1 Rep Max

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Step 12

Core Exercises

Full Bench Press using underhand grip (Always warm up with straight arm bench press)

Assume an underhand grip (palms turned upward) with hands slightly less than shoulder width apart. Complete full bench press using an underhand grip. Concentrate on keeping arms close to the sides.

Partial Lat Pulldown with overhand grip

Place a 6 inch towel roll under T shirt before assuming normal lat pulldown position. Assume an overhand grip (palms turned downward) with hands slightly less than shoulder width apart. Lean back to a comfortable position. Initiate movement by squeezing shoulder blades together then pull bar down until it touches the towel roll. Return to starting position.

Power Clean – Hang Clean from power position

Lift bar off a waist-level rack using a power clean grip. Lower the bar to mid thigh with the knees bent and the shoulders slightly in front of the bar. Clean the bar from this position concentrating on proper timing and rack position. Avoid letting the bar “crash” on the shoulders. Athletes should drop the bar after each clean. Hands should be kept on the bar, but only to control the bar, not to decelerate it.

Back Squat

High bar squat, modified center of gravity bar or stingray

Partial Shoulder Press

Using a squat rack or Smith Machine place the bar in a starting position for

Accessory Exercises

Chest Flys

Straight Arm Lat Pulldown

Seated Rows

Tricep Extensions with lat pull down machine

Lateral and Front Deltoid Raises

Bicep Curls

Program Design -3 sets x 8 reps

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

the front shoulder press position.
Press the bar from the starting position until equal with the top of the forehead.
Return to starting position.

Incline Bench Press

Receive the bar in a incline bench press position (hands slightly less than shoulder width apart) with the elbows locked. Push the bar straight up using the shoulder and chest and round the shoulders (**no bending elbows or wrists**). Movement range is small. Alternate an overhand (palms turned downward) grip with an underhand grip (palms turned upward) every other set.

Program Design- 4 sets x 10 reps at 70% of 1 Rep Max

Step 13

Core Exercises

Full Bench Press using normal grip
(Always warm up with straight arm bench press)

Assume an overhand grip (normal grip) with hands slightly less than shoulder width apart. Complete full bench press using an overhand grip. Concentrate on keeping arms close to the side. Do not allow weight to bounce off chest.

Full Lat Pulldown with overhand grip
Assume normal lat pulldown position. Assume an overhand grip (palms turned downward) with hands slightly less than shoulder width apart. Lean back to a comfortable position. Initiate movement by squeezing shoulder blades together then pull bar down until it touches your chest. Return to starting position.

Accessory Exercises

Chest Flys
Straight Arm Lat Pulldown
Seated Rows
Tricep Extensions with lat pull down machine
Lateral and Front Deltoid Raises
Concentration Curls

Program Design- 3 sets x 8 reps

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Power Clean – Hang Clean from above the knee

Lift bar off a waist-level rack using a power clean grip. Lower the bar to a position just above the knees with the shoulders slightly in front of the bar. Clean the bar from this position concentrating on proper timing and rack position. Avoid letting the bar “crash” on the shoulders.

Back Squat

High bar squat, modified center of gravity bar or stingray

Shoulder Press Lockout

Using squat rack or Smith Machine, secure the bar in a front shoulder press **starting position** equal to forehead height. Press from forehead height until arms are fully locked out. Return to starting position.

Partial Incline Bench Press using underhand grip

Place a 6 inch towel roll under T shirt before assuming normal bench press position. Assume a underhand grip (palms turned upward) with hands slightly less than shoulder width apart. The bar is lowered until it touches the towel then pressed to the starting position.

Program Design – 5 sets x 10 reps at 70% of 1 Rep Max

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

ACROMIOPLASTY WITH DISTAL CLAVICLE RESECTION, ROTATOR CUFF REPAIR (POST OPERATIVE)

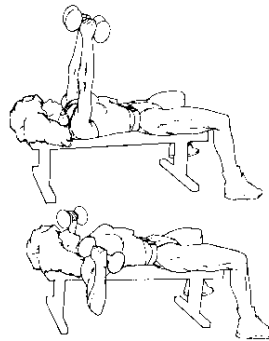
Phase III – Exercises

Goals Phase III: Full ROM Shoulder Press and Power Clean

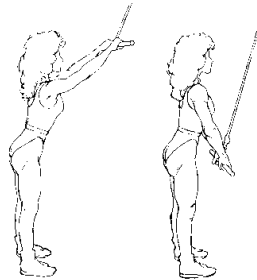
Time Frame: 2 - 4 weeks (Lift 2-3 X/week; 1-2 days rest between workouts; follow soreness rules on page 19)

Accessory Exercises (Phase III):

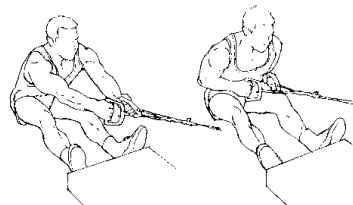
Chest Flys



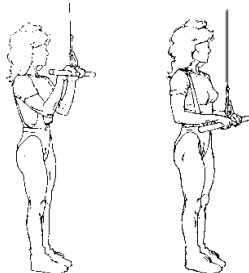
Straight Arm Lat Pulldown



Seated rows

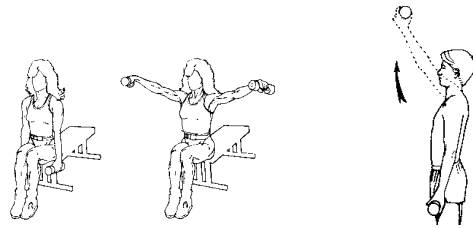


Triceps Extensions

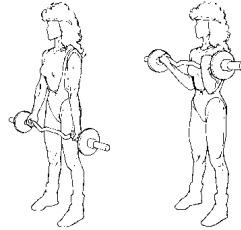


UNIVERSITY OF DELAWARE PHYSICAL THERAPY

Deltoid Raises



Biceps Curls



Step 14

Core Exercises

Standard Bench Press

Standard Lat Pull down

Power Clean

Lift bar off a waist-level rack using a power clean grip. Lower the bar to a position just above the knees with the shoulders slightly in front of the bar. Clean the bar from this position concentrating on proper timing and rack position. Avoid letting the bar “crash” on the shoulders.

Back Squat

High bar squat, modified center of gravity bar or stingray

Shoulder Press

Using a squat rack or Smith Machine place the bar at normal starting position for the front shoulder press. Press to full overhead position and return to start

Incline Bench Press

Place a 6 inch towel roll under T shirt before assuming normal bench press position. Assume an overhand grip (normal grip) with hands slightly less than shoulder width apart. The bar is lowered until it touches the towel then pressed to the starting position.

Program Design

5 sets x 10 reps at 70% **(H)**

4 sets x10 reps at 60% **(L)**

(H) - Heavy Day with emphasis on increased repetitions and increase percentage of (1) repetition maximum.

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

(L) - Light Day with emphasis on decreased repetitions and decreased percentage of (1) repetition maximum. The rationale is to allow the muscle tissue to rest and recover for the next heavy session.

If the athlete lifts two days per week he/she should complete one heavy and one light day. If the athlete lifted three days per week, here is a sample alternate heavy /light schedule.

	Day 1	Day 3	Day 5
Week 1	Heavy	Heavy	Light
Week 2	Light	Light	Heavy

Accessory Exercises

Chest Flys
Straight Arm Lat Pulldown
Seated Rows
Tricep Extensions with lat pull down machine
Lateral and Front Deltoid Raises
Bicep Curls

Program Design- 3 sets x 8 reps

Step 15

Core Exercises

Standard Bench Press
Standard Lat Pull down
Power Clean

Resume normal power clean from the floor with emphasis on timing, bar path and proper rack position. Keep the bar close to the body and do not allow the bar to “crash” on the shoulders. In addition, the athlete should be taught to absorb the impact of the bar by

Accessory Exercises

Chest Flys
Straight Arm Lat Pulldown
Seated Rows
Tricep Extensions with lat pull down machine
Lateral and Front Deltoid Raises
Bicep Curls

Program Design - 3 sets x 8 reps

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

<p>bending the knees as the bar is racked on the shoulders.</p> <p>Back Squat High bar squat, modified center of gravity bar or stingray</p> <p>Standard Shoulder Press</p> <p>Incline Bench Press Assume an underhand grip (palms turned upward) with hands slightly less than shoulder width apart. Complete full bench press using an underhand grip. Concentrate on keeping arms close to the sides.</p> <p><u>Program Design</u> 5 sets x 8 reps at 75% (H) 4 sets x 8 reps at 65 % (L)</p>	
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

<p><u>Step 16</u></p> <p><u>Core Exercises</u></p> <p>Standard Bench Press Standard Lat Pull down Power Clean - Full ROM from the floor Back Squat High bar squat, modified center of gravity bar or stingray</p> <p>Standard Shoulder Press</p> <p>Incline Bench Press Assume an overhand grip (normal grip) with hands slightly less than shoulder width apart. Complete full bench press using an overhand grip. Concentrate on keeping arms close to the side. Do not allow weight to bounce off chest.</p> <p><u>Program Design</u> 4 sets x 6 reps at 80% (H) 4 sets x 6 reps at 70 % (L)</p>	<p><u>Accessory Exercises</u></p> <p>Chest Flys Straight Arm Lat Pulldown Seated Rows Tricep Extensions with lat pull down machine Lateral and Front Deltoid Raises Bicep Curls</p> <p><u>Program Design-</u> 3 sets x 8 reps</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

UNIVERSITY OF DELAWARE PHYSICAL THERAPY

<p><u>Step 17</u></p> <p><u>Core Exercises</u></p> <p>Standard Bench Press Standard Lat Pull down Power Clean – Full ROM from the floor Back Squat High bar squat, modified center of gravity bar or stingray Standard Shoulder Press Incline Bench Press</p> <p><u>Program Design</u> 4 sets x 5 reps at 85% (H) 3 sets x 5 reps at 75% (L)</p>	<p><u>Accessory Exercises</u></p> <p>Chest Flys Straight Arm Lat Pulldown Seated Rows Tricep Extensions with lat pull down machine Lateral and Front Deltoid Raises Bicep Curls</p> <p><u>Program Design</u> - 3 sets x 8 reps</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Soreness Rules

Criterion	Action
1. Soreness during warm-up that continues	2 days off, drop down 1 step
2. Soreness during warm-up that goes away	Stay at step that led to soreness
3. Soreness during warm-up that goes away but redevelops during session	2 days off, drop down 1 step
4. Soreness the day after lifting (Not muscle soreness)	1 day off, do not advance program to the next step
5. No soreness	Advance 1 step per week or as instructed by healthcare professional