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Jeff is a WNBF Pro Drug-Free Bodybuilder and IPF/CPU Powerlifter in the 74 kg class. He earned the title of Mr. Junior Canada for natural bodybuilding in 2012 prior to which Jeff was a two-time Mr. Junior Newfoundland title-holder for 2009 and 2010.

As a powerlifter, Jeff has claimed a 502 lb squat, 336 lb bench press (2014 Canadian national record) and a 518 lb deadlift with an all time best Wilks score of 446.

With a Bachelor of Science degree in biochemistry, Jeff has gathered the requisite scientific knowledge to compliment his practical experience acquired through training and coaching. Jeff worked as a coach with esteemed online coaching group The Strength Guys through 2014 and 2015 before branching out with STRCNG. Jeff has coached women's bikini and men's bodybuilding national and provincial champions, professional natural bodybuilders and nationally and IPF Worlds qualified raw powerlifters. He has presented seminars on block periodization, concurrent training and nutrition for natural bodybuilding in academic settings including the 2014 Online Fitness Summit and at the University of Iowa. Jeff has recorded interviews with some of the best in the business on his science-based fitness podcast IceCream4PRs.

Previously, Jeff was enrolled in the Doctor of Dental Surgery program at Dalhousie University where he completed two years of the program before deciding to instead pursue a career where his passions lie. He has aspirations of completing a PhD in exercise science or a related field.

Through his informative and personable Youtube channel and Instagram Jeff aims to share the knowledge he has gathered through university education and field experience with others who are passionate about bodybuilding, powerlifting and the science behind building muscle, losing fat and getting healthier.

Jeff currently lives in Kelowna, Canada while frequently visiting his girlfriend in Tampa, Florida, where he is coaching athletes around the world full-time while preparing for his next competition season in natural bodybuilding in 2018.



AMRAP: AS MANY REPS AS POSSIBLE

DB: DUMBBELL

EMG: ELECTROMYOGRAPHY

LSRPE: LAST SET RPE

MVC: MAXIMUM VOLUNTARY CONTRACTION

PROGRESSIVE OVERLOAD: THE GRADUAL INCREASE OF STRESS PLACED UPON THE BODY

DURING EXERCISE TRAINING

ROM: RANGE OF MOTION

RPE: RATE OF PERCEIVED EXERTION

TEMPO: THE SPEED AT WHICH THE LIFT OCCURS. TEMPO NOTATION IS GIVEN AS FOLLOWS: 4:3:2:1 WOULD MEAN A 4 SECOND ECCENTRIC, 3 SECOND PAUSE AT THE BOTTOM, 2 SECOND CONCENTRIC AND 1 SECOND PAUSE AT THE TOP. THE MOST COMMON TEMPO IN THIS PROGRAM IS 2:0:1:0.



1. Why is a specific shoulder day included?

A: Research shows that you're stronger earlier in the training session.¹ Because shoulder work, especially isolation work for specific heads, is often added on after a bunch of pushing or pulling work, it's easy to treat smaller muscles like the rear delts and muscles of the rotator cuff as an "afterthought". By giving shoulders their own day, you ensure that they're getting the priority they need

2. How do I determine my 1RM for Standing Overhead Barbell Press?

On Day 1 of Week 1 perform an AMRAP test as outlined:

- Warm up by pyramiding up in weight using estimated 1RM (suggested warm up is provided in the program)
- Do a set of as many reps as possible with 90% of your estimated 1RM
- Alternatively, you can pick a weight you think you can do about 3-5 reps with, and do as many reps as possible with that
- Plug the results of the AMRAP test in here to determine new working 1RM: http://www.exrx.net/Calculators/OneRepMax.html
- Use this estimated 1RM moving forward in the program to determine what weights to use each day

3. What if I am still sore? Should I train or take another rest day?

A: Training sore is fine unless it puts you at an increased risk of injury. If you're having a difficult time getting into position or completing a full ROM due to pain, do not train. Otherwise, still train but be sure to perform a slightly longer warm up for each exercise. Use your own discretion to avoid injury but training sore will not impair gains in and of itself.

4. What if I can't do Standing Overhead Barbell Press?

A: Do seated barbell shoulder press or seated dumbbell shoulder press instead. They all are very similar movement patterns and have similar levels of activation.

5. If the RPE increases across sets, should I drop the weight back?

A: If you hit failure prematurely, drop the weight back. Otherwise, select the weight as appropriate to hit the RPE for each set.



6. Why such little exercise variation from week to week?

A: Changing exercises from week to week is more likely to flatten out the progression curve. They do change slightly week to week and from Block 1 to Block 2, but the bulk of the program maintains the same exercise selection. This is to ensure progression by adding volume incrementally to these specific movements.

7. What is the LSRPE column for?

A: The idea here is to reflect on your last set and ask yourself how many more reps you think you could have gotten. It is a useful way to account for how hard you're working on the final set.

8. What are the differences between the women's and men's shoulder hypertrophy programs

A: The main differences are that:

- The women's program has fewer exercises with trap carry over because from my experience as a coach, most women are less interested in growing their traps than men
- The women's program includes some front delt isolation that is absent in the men's program since men tend to include more chest work in their regular programming than women, resulting in more front delt carry over for men.
- The women's program has more rep volume in the form of higher rep sets since women generally have lower fatigueability than men. I discuss the implications of this in this **video**.
- The base core of the programs are the same, which is reflective of the fact that the majority of basic musculo-skeletal and exercise science training principles apply to both sexes.

9. Can this program be run alongside your Arm Hypertrophy Program?

A: As long as you feel like you're recovering adequately from the training sessions and continuing to progress, then there is no reason why these programs shouldn't be run at the same time. However, since the Arm Hypertrophy Program is intended to be a "weakpoint specialization" routine for the arms, and the Shoulder Hypertrophy Program is meant to do the same for the shoulders, it might make most sense to run them one after the other. Specializing your training around both arms and shoulders at the same time may result in a lack of emphasis on other bodyparts like the chest, back, legs, etc. or may cause recovery issues for both the arms and limiting progress. Ultimately, it comes down to recovery and your personal goals within the context of your entire weekly routine.



10. Can this program be run alongside your Chest Hypertrophy Program?

A: No. Because of the very high volume of pressing that would result from running these two programs concurrently, the risk of overuse and injury would be high, even in the most advanced of trainees. I would recommend running these programs one after the other, focusing primarily on maximizing the development of one bodypart at a time.

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	70-80%	7	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	1	AMRAP	90%	9.5	3.0					AS MANY REPS AS POSSIBLE (AMRAP) DETERMINE ESTIMATED 1RM	
LEAN-AWAY CABLE LATERAL RAISE	3	12-15		8	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. INCLINE DUMBBELL LATERAL HOLD	2	HOLD		8	0.0					PIN CHEST TO 45 DEGREE INCLINE BENCH, HOLD DUMBBELLS IN THE TOP OF THE LATERAL RAISE FOR 30 SECONDS	
A2. BANDED LATERAL RAISE	2	30		8	1.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
REVERSE PEC DECK	3	15-20		8	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UP CABLE AT MID-CHEST LEVEL	
ROPE UPRIGHT ROW	3	8-10		8	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, LOAD HEAVILY, "PULL ROPE APART"	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		8	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		8	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		8	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (MYO-REP)	3			10	1.0					PERFORM 15 REPS TO FAILURE, REST 5 SECONDS, DO ANOTHER 5 REPS, REST 5 SECONDS, DO ANOTHER 5 REPS	
ROPE FACEPULL	3	15-20		9	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE PEC DECK	3	10		9	0.0					PALMS FACE EACH OTHER (NEUTRAL GRIP)	
A2. REVERSE PEC DECK (PULSE)	3	+10		10	1.0					EXTEND SET BY DOING 10 SHORT ROM "PULSES" AT THE TOP END OF THE CONCENTRIC, DROP WEIGHT IF NECESSARY	

WEEKLY FRONT DELT VOLUME = 7, WEEKLY SIDE DELT VOLUME = 16, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 41

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	7	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	4	75%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	3	12-15		8	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. INCLINE DUMBBELL LATERAL HOLD	2	HOLD		8	0.0					AIM TO ADD TIME FROM LAST WEEK	
A2. BANDED LATERAL RAISE	2	30		8	1.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
REVERSE PEC DECK	3	15-20		8	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UPCABLE AT MID-CHEST LEVEL	
ROPE UPRIGHT ROW	3	8-10		8	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, LOAD HEAVILY, "PULL ROPE APART"	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		8	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		8	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		8	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (MYO-REP)	3			10	1.0					PERFORM 15 REPS TO FAILURE, REST 5 SECONDS, DO ANOTHER 5 REPS, REST 5 SECONDS, DO ANOTHER 5 REPS	
ROPE FACEPULL	3	15-20		9	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE PEC DECK	3	10		9	0.0					PALMS FACE EACH OTHER (NEUTRAL GRIP)	
A2. REVERSE PEC DECK (PULSE)	3	+10		10	1.0					EXTEND SET BY DOING 10 SHORT ROM "PULSES" AT THE TOP END OF THE CONCENTRIC, DROP WEIGHT IF NECESSARY	

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 16, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 44

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SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	7	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	4	77.5%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		8	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. INCLINE DUMBBELL LATERAL HOLD	2	HOLD		8	0.0					AIM TO ADD TIME FROM LAST WEEK	
A2. BANDED LATERAL RAISE	2	30		8	1.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
REVERSE PEC DECK	3	15-20		8	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UPCABLE AT MID-CHEST LEVEL	
ROPE UPRIGHT ROW	4	8-10		8	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, LOAD HEAVILY, "PULL ROPE APART"	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		8	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		8	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		8	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (MYO-REP)	3			10	1.0					PERFORM 15 REPS TO FAILURE, REST 5 SECONDS, DO ANOTHER 5 REPS, REST 5 SECONDS, DO ANOTHER 5 REPS	
ROPE FACEPULL	3	15-20		9	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE PEC DECK	3	10		9	0.0					PALMS FACE EACH OTHER (NEUTRAL GRIP)	
A2. REVERSE PEC DECK (PULSE)	3	+10		10	1.0					EXTEND SET BY DOING 10 SHORT ROM "PULSES" AT THE TOP END OF THE CONCENTRIC, DROP WEIGHT IF NECESSARY	

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 18, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 46

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	7	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	5	77.5%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		8	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. INCLINE DUMBBELL LATERAL HOLD	2	HOLD		8	0.0					AIM TO ADD TIME FROM LAST WEEK	
A2. BANDED LATERAL RAISE	2	30		8	1.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
REVERSE PEC DECK	3	15-20		8	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UPCABLE AT MID-CHEST LEVEL	
ROPE UPRIGHT ROW	4	8-10		8	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, LOAD HEAVILY, "PULL ROPE APART"	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		8	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		8	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		8	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (DROP SET)	3			10	1.0					PERFORM 15 REPS TO FAILURE, DROP 5 LBS, DO ANOTHER 5 REPS, DROP 5 LBS, DO ANOTHER 5 REPS	
ROPE FACEPULL	3	15-20		9	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE PEC DECK	3	10		9	0.0					PALMS FACE EACH OTHER (NEUTRAL GRIP)	
A2. REVERSE PEC DECK (PULSE)	3	+10		10	1.0					EXTEND SET BY DOING 10 SHORT ROM "PULSES" AT THE TOP END OF THE CONCENTRIC, DROP WEIGHT IF NECESSARY	

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 18, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 46

TOTAL TRAINING TIME:	
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SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	6	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	4	80%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		9	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. BANDED LATERAL RAISE	3	20		10	0.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
A2. BANDED FRONT "Y" RAISE	3	20		10	1.0					REACH FAILURE WITH THE LATERAL RAISE AND THEN DO Y RAISES, BEND KNEES TO DECREASE RESISTANCE AS NEEDED	
REVERSE PEC DECK	3	15-20		9	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UPCABLE AT MID-CHEST LEVEL	
1-ARM DUMBBELL UPRIGHT ROW	3	8-10		9	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, INITIATE MOVEMENT "OUT" LIKE A LATERAL RAISE	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		9	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		9	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

IATOT	TRAINING	TIME:	

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		9	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (SLOW ECCENTRIC)	3	10		9	1.0					PERFORM A CONTROLLED, 4 SECOND NEGATIVE ON EACH REP	
ROPE FACEPULL	3	15-20		10	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE CABLE CROSSOVER (HIGH)	3	15		9	0.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES 1 FOOT OVERHEAD	
A2. REVERSE CABLE CROSSOVER (MID)	3	+15		10	1.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES AT SHOULDER LEVEL, DECREASE WEIGHT AS NEEDED	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 19, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 47

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	6	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	3	82.5%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		9	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. BANDED LATERAL RAISE	3	20		10	0.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
A2. BANDED FRONT "Y" RAISE	3	20		10	1.0					REACH FAILURE WITH THE LATERAL RAISE AND THEN DO Y RAISES, BEND KNEES TO DECREASE RESISTANCE AS NEEDED	
REVERSE PEC DECK	3	15-20		9	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UP CABLE AT MID-CHEST LEVEL	
1-ARM DUMBBELL UPRIGHT ROW	3	8-10		9	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, INITIATE MOVEMENT "OUT" LIKE A LATERAL RAISE	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		9	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		9	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		9	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (SLOW ECCENTRIC)	3	11		9	1.0					PERFORM A CONTROLLED, 4 SECOND NEGATIVE ON EACH REP	
ROPE FACEPULL	3	15-20		10	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE CABLE CROSSOVER (HIGH)	3	15		9	0.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES 1 FOOT OVERHEAD	
A2. REVERSE CABLE CROSSOVER (MID)	3	+15		10	1.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES AT SHOULDER LEVEL, DECREASE WEIGHT AS NEEDED	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 19, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 47

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	6	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	4	2	85%	8	3.0					TUCK GLUTES, PRESS UP AND BACK OVERHEAD, USE LIFTING BELT IF POSSIBLE	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		9	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. BANDED LATERAL RAISE	3	20		10	0.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
A2. BANDED FRONT "Y" RAISE	3	20		10	1.0					REACH FAILURE WITH THE LATERAL RAISE AND THEN DO Y RAISES, BEND KNEES TO DECREASE RESISTANCE AS NEEDED	
REVERSE PEC DECK	3	15-20		9	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UP CABLE AT MID-CHEST LEVEL	
1-ARM DUMBBELL UPRIGHT ROW	3	8-10		9	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, INITIATE MOVEMENT "OUT" LIKE A LATERAL RAISE	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		9	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		9	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

TOTAL TRAINING TIME:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		9	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (SLOW ECCENTRIC)	3	12		9	1.0					PERFORM A CONTROLLED, 4 SECOND NEGATIVE ON EACH REP	
ROPE FACEPULL	3	15-20		10	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE CABLE CROSSOVER (HIGH)	3	15		9	0.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES 1 FOOT OVERHEAD	
A2. REVERSE CABLE CROSSOVER (MID)	3	+15		10	1.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES AT SHOULDER LEVEL, DECREASE WEIGHT AS NEEDED	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

WEEKLY FRONT DELT VOLUME = 10, WEEKLY SIDE DELT VOLUME = 19, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 47

SHOULDER DAY

*NOTE: REST TIMES ARE GIVEN IN MINUTES.

DAY 1	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN, SHORT ROM	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	1	8-10	50%	5	2.0					WARM UP SET TO REHEARSE TECHNIQUE	
STANDING OVERHEAD BARBELL PRESS (WARM UP)	2	4-6	60-70%	6	2.0					WARM UP SET TO GET USED TO HEAVIER LOADING	
STANDING OVERHEAD BARBELL PRESS	1	AMRAP	90%	9.5	3.0					AS MANY REPS AS POSSIBLE (AMRAP) DETERMINE NEW ESTIMATED 1RM	
LEAN-AWAY CABLE LATERAL RAISE	4	12-15		9	3.0					LEAN INTO DIRECTION OF THE RAISE, PULL CABLE BETWEEN YOUR LEGS OR BEHIND BACK	
A1. BANDED LATERAL RAISE	3	20		10	0.0					STAND IN THE MIDDLE OF A RESISTANCE BAND AND DO CONTROLLED LATERAL RAISES	
A2. BANDED FRONT "Y" RAISE	3	20		10	1.0					REACH FAILURE WITH THE LATERAL RAISE AND THEN DO Y RAISES, BEND KNEES TO DECREASE RESISTANCE AS NEEDED	
REVERSE PEC DECK	3	15-20		9	1.0					USE A PALMS DOWN GRIP AND INITIATE MOVEMENT WITH REAR DELTS, NOT TRAPS	

TOTAL TRAINING TIME:

SUPPLEMENTAL A

DAY 2	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
ROPE FACEPULL	3	12-15		7	1.0					USE UNDERHAND GRIP AND EXTERNALLY ROTATE THROUGHOUT ROM, SET UP CABLE AT MID-CHEST LEVEL	
1-ARM DUMBBELL UPRIGHT ROW	3	8-10		9	2.0					STOP ROM ONCE ELBOWS REACH SHOULDER HEIGHT, INITIATE MOVEMENT "OUT" LIKE A LATERAL RAISE	
DUMBBELL LATERAL RAISE	3	12-15		10	1.0					BOTH ARMS AT ONCE, SLIGHT CHEATING ON THE LAST TWO REPS TO EXTEND THE SET	
A1. WIDE GRIP SEATED CABLE ROW	3	15-20		9	0.0					ESTABLISH A MIND MUSCLE CONNECTION WITH REAR DELTS	
A2. BENT OVER DUMBBELL REVERSE FLYE	3	15-20		9	1.0					DRIVE BACK OF HANDS "OUT AND BACK", LIGHTER WEIGHT AND SLOWER TEMPO	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

ΤΩΤΔΙ	TRAINING	TIMF:

SUPPLEMENTAL B

DAY 3	SETS	REPS	%1RM	RPE	REST	1	2	3	4	NOTES	LSRPE
CABLE EXTERNAL ROTATION	2	12-15		7	0.5					AVOID FAILURE, KEEP ELBOW TUCKED IN	
STANDING DUMBBELL PRESS	3	10-12		9	2.0					PALMS FACE ONE ANOTHER AT BOTTOM, ROTATE TO FACE FORWARD THROUGHOUT ROM	
DUMBBELL LATERAL RAISE (SLOW ECCENTRIC)	3	12		9	1.0					PERFORM A CONTROLLED, 4 SECOND NEGATIVE ON EACH REP	
ROPE FACEPULL	3	15-20		10	1.0					OVERHAND GRIP AND SQUEEZE SHOULDER BLADES TOGETHER, SET UP CABLE 1 FOOT ABOVE EYE LEVEL AND PULL TO EYES	
A1. REVERSE CABLE CROSSOVER (HIGH)	3	15		9	0.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES 1 FOOT OVERHEAD	
A2. REVERSE CABLE CROSSOVER (MID)	3	+15		10	1.0					PERFORM CABLE REVERSE FLYES BOTH ARMS AT ONCE, SET UP CABLES AT SHOULDER LEVEL, DECREASE WEIGHT AS NEEDED	

TAKE THE FINAL SET OF EACH EXERCISE TO FAILURE

|--|

WEEKLY FRONT DELT VOLUME = 7, WEEKLY SIDE DELT VOLUME = 19, WEEKLY REAR DELT VOLUME = 18, TOTAL DELT VOLUME = 44



BEFORE EVERY TRAINING SESSION PERFORM:

- 5-10 minutes of moderate intensity cardio
- Dynamic stretches such as arm swings and circles for 15-20 reps

BEFORE THE FIRST EXERCISE FOR EACH BODYPART:

- Pyramid up in weight with 1-2 light sets, getting progressively heavier
- Such a warm up is only required for the first "heavy" exercise for each body part.
- A sample percentage-based warm up includes for Standing Overhead Barbell Press is provided to be used as a guide.

PROGRAM VARIABLES

INTENSITY

How hard should you train? How heavy should you go?

The answers to these questions are determined by the RPE given for each exercise. Keep in mind that RPE's are meant to be for working sets only. An RPE of 10 indicates the set should be taken to failure. An RPE of 9 means you should stop one rep shy of failure. An RPE of 8 means you should stop two reps shy of failure and so on. RPE's provided are intended to be applied to all working sets except for when the training day is annotated with a note indicating that the final set of each exercises is to be taken to failure.

VOLUME

How much volume you need to progress will depend on your level of advancement and how "stubborn" your shoulders are. The more advanced you are and the more stubborn your shoulders are, the more volume you need. Experts suggest that provided a sufficient volume of horizontal and vertical pressing is included in your program, 6-8 weekly sets of front delt-specific work is plenty to maximize progress (including overhead pressing). 16-22 weekly sets for side and rear delts is most often sufficient to drive progress in intermediate to advanced trainees². This is, of course, under the assumption that there will be some crossover between "isolation exercises". Because of the high degree of overlap in the program with exercises like reverse pec deck and rope facepulls, volume prescriptions are slightly on the conservative end of "high". Granted, if you're a relatively new lifter, you may want to start with one less set per movement for the first week or two. From there, you can assess your tolerance to that weekly volume and then begin adding sets once you're confident you're recovering adequately.

FREQUENCY

The most recent and comprehensive meta analysis on training frequency concluded that 2x/week is better than 1x/week for maximizing growth while frequencies of 3 or more may or may not be better.³ However, because the shoulders are trained to a large degree with isolation movements in this program (which have faster recovery curves), a 3 day per week frequency is likely to be more optimal than a lower frequency which would make squeezing in sufficient weekly volume difficult. This frequency should be easy to adapt to either an upper/lower or push/pull/legs split, examples of which are provided in the "Sample Training Splits" section.

PROGRAM VARIABLES

PERIODIZATION

WEEKLY PROGRESSION

A linear progression scheme is used for all exercises except the Standing Overhead Barbell Press in this program. The goal with this linear progression is to add reps while keeping the weight the same until the top end of the rep range is reached for all sets. From there, you will add weight and go back to the low end of the rep range. In the real world, it might not work out that neatly. As long as you're adding some weight or some reps over time on average (meaning it doesn't have to increase EVERY week) you're doing it right.

For the Standing Overhead Barbell Press, a percentage-based progression scheme is used. An estimated 1RM is determined in week 1 using an AMRAP test and load prescriptions are made in the following weeks based off percentages of that 1RM. The first 4 weeks (Block 1) are set toward volume accumulation, while weeks 5-8 see a volume decrease set toward the goal of increasing max strength.

BLOCK PERIODIZATION

The program is split into 2 blocks: Weeks 1-4 and Weeks 5-8.

Block 1 is focused on getting adapted to the relatively high volume and frequency of the program. In order to ensure this happens safely and without undesired overreaching, RPE's are kept generally between 7-9 for this block, with a few RPE 10 sets included sparingly at the end of the training weeks.

Block 2 is quite similar in exercise selection to ensure progressive overload and has more focus on reaching momentary muscular failure (MMF). Because the previous block allowed for adaptation to the volume and frequency of the program, intensity is increased in Block 2 as the final set of most exercises are taken to failure and heavier loads are used. This block also introduces several new movements, loading patterns and intensity techniques for the sake of novelty, something that has been emphasized in the scientific literature as a central tenant of periodization⁴.

PROGRAM VARIABLES

STEP PERIODIZATION

Week 1:

• Weekly set volume is 41 total sets

Weeks 2:

• An increase in volume is made to 44 total sets

Weeks 3 and 4:

- Weekly volume is kept stable at 46 total sets
- An increase in set volume, rep volume and volume load is seen for a sizeable training stimulus

Weeks 5 and 6:

- Another step in volume is made to 47 total sets
- Intensity of effort increases as more sets are taken to failure
- Load increases are seen for the Barbell Press, as rep volume drops

Weeks 7 and 8:

- Volume drops from a max of 47 sets to 44 sets in Week 8
- A new estimated 1RM is determined for the Standing Barbell Press
- These final weeks will provide the biggest growth stimulus
- Should be followed up with a week off (unload) or a light week (deload) to re-sensitize the muscles for new hypertrophy
- Optionally repeat the program following unloading or deloading

It's important to understand the biomechanical function of the shoulders before we can understand how to best train them. So first, we need to quickly cover their basic anatomy.

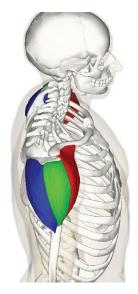


Figure 1 Deltoid Muscle

(Image: By BodyParts3D, © The Database Center for Life Science licensed under CC Attribution–Share Alike 2.1 Japan, https://commons.wikimedia.org/wiki/File:Deltoid_muscle_lateral5.png)

ANATOMY & FUNCTION

THE UPPER ARM CONSISTS OF 3 MUSCLES IN THE ANTERIOR COMPARTMENT:

The glenohumeral joint of the shoulder, is a "ball and socket" joint, meaning it has a very high degree of freedom and the muscles that act on it can perform many different functions. The deltoid muscle is split into three distinct sets of fibers or "heads", which are outlined below.

ANTERIOR (FRONT) DELTOID (RED IN FIGURE 1):

The anterior deltoid originates on the clavicle, or collar bone, and inserts on the humerus bone of the upper arm. Its primary function is shoulder flexion (or lifting your arm up like in a front raise). However, since the front delt exhibits its greatest force potential with the arms above horizontal, front raises are not the most optimal way to train the anterior delts - horizontal and vertical pressing are more effective.

LATERAL (SIDE) DELTOID (GREEN IN FIGURE 1):

The lateral, or "side" deltoid originates on the top of the scapula, or shoulder blade, and also inserts on the humerus. Its primary function is shoulder abduction (or lifting your arm out to the side like in a lateral raise).

POSTERIOR (REAR) DELTOID (BLUE IN FIGURE 1):

The posterior, or "rear" deltoid inserts a little further back on the scapula than the lateral deltoid (on the lower edge of a bony protuberance called the scapular spine), still inserting on the humerus. Its primary function is horizontal shoulder abduction (or lifting your arm out to the side horizontally, like in a bent over reverse flye).

ROTATOR CUFF:

The rotator cuff is composed of four muscles, the supraspinatus, infraspinatus, teres minor, subscapularis that collectively function to stabilize the shoulder joints and perform internal/external rotation. According to a 2013 systematic review on training the rotator cuff, including some form of external rotation exercise like a side-lying external rotation at 0° abduction is effective for improving shoulder stability.⁵

FIBER TYPE

Multiple lines of research indicate that the deltoid is nearly a dead even 50/50 split of type 1, or slow twitch, and type 2, or fast twitch muscle fibers.⁶ This indicates that the shoulders should be trained with a variety of rep ranges with at least one "main" heavy movement to fully activate the fast twitch fibers. Because the lateral and rear delts have a relatively low force generating capacity it is better to use lighter weights and higher reps to target these smaller muscles. Additionally, nearby muscles with similar functions but greater strength capacity, such as the trapezius, can often "take over" if too heavy of loads are used.

BACKGROUND

Scientific fitness author Michael Gundill noted that bodybuilders have 5 times the front delt development of normal, untrained folks, but only 3 times the side delts, and only 10-15% more rear delt size. This indicates that the side and rear delts have the most room for improvement and many people are likely hitting their front delts sufficiently with their chest training alone.

SHOULDER EXERCISES EXPLAINED

One main "heavy" movement is included each day and the remainder of the program is filled in with a variety of movements that aim to isolate specific parts of the deltoid muscle for proportional development, utilizing different loading schemes and patterns as needed to hit total weekly volume targets.

CABLE EXTERNAL ROTATION: This movement is included as a prehabilitation measure intended to strength the muscles of the rotator cuff and improve stability of the shoulder.

STANDING OVERHEAD BARBELL PRESS: A vertical press not only shows higher levels of deltoid activation than lower inclines,⁸ it is also very amenable to progressive overload and as such is included as the main compound movement in this program. Because heavier loads can be handled when using a lifting belt, I recommend using it if you have one. To determine the weight used each week, you need to first determine your estimated 1RM (see FAQ section).

LEAN-AWAY CABLE LATERAL RAISE: This exercise is intended to isolate the lateral deltoid. Because the cable allows for a more constant resistance curve, the muscle is under tension throughout the entire range of motion. Leaning away has been shown to change the abduction angle such that less emphasis is placed on the rotator cuff, and more emphasis is placed on the side delt.⁹

INCLINE DUMBBELL LATERAL HOLD: With this exercise, you will be pinning your upper chest to a 45 degree incline bench and holding dumbbells in the "top" position of a lateral raise for a specified length of time. Increasing the time under tension each week provides a novel means of progressive overload and the longer rep duration is designed to stimulate significant metabolic stress. The use of an incline is intended to shift some of the emphasis toward the rear delt.

BANDED LATERAL RAISE: Bands provide a unique loading pattern to cables, where peak resistance occurs at the top of the range of motion. Since these are to be performed as a superset with the incline dumbbell lateral hold, muscle perfusion and blood flow are maximized.

REVERSE PEC DECK: Three studies have independently shown the reverse pec deck to elicit about 90% EMG activity of maximum voluntary contraction for the rear delts. ^{10,11,12} A 2013 study by Schoenfeld et al found that a neutral, or palms-facing-each-other, hand position increases mean activity of the rear delts, ¹² however co-author Bret Contreras later commented that some subjects saw greater activation with the pronated, or palms down, grip¹³. For this reason, this program utilizes both grips, however, if you find one grip to "feel" better than the other, continue to use that grip. "Pulses" are used as an intensity technique in the Supplemental B workout to extend the set and maximize muscle motor unit recruitment.

ROPE FACEPULL: The rope facepull is a common favourite amongst industry professionals for improving posture and shoulder health. The external rotation component seen when using the underhand grip will strength the rotator cuff muscles and the horizontal abduction component will target the rear delts, making this exercise a staple in any shoulder-focused program. It is trained first in the Supplemental A workout as both a warm-up measure and to give priority to the oft-neglected "smaller" muscles of the shoulder.

ROPE UPRIGHT ROW: Because of the strong shoulder abduction component, this exercise might be the best compound movement for lateral delt development. According to one study, a wider grip leads to greater lateral delt activation. However, since using a rope allows for more freedom at the shoulder joint than a barbell, a rope variation is included in the program. Thinking about "pulling the rope apart" and initiating the movement "out" instead of up, is an effective cue for taking emphasis off the traps and onto the side delts. To prevent shoulder impingement, prevent the elbows from rising above shoulder height.

DUMBBELL LATERAL RAISE: Despite a potentially sub-optimal resistance curve, a dumbbell lateral raise is still included as a time-tested movement that has gained credence as being a staple for side delt development. It also can be easily performed bilaterally, unlike the cable, making the training effect more efficient and timely. The use of mild cheating at the end of the set is easier with dumbbells, and may have merit for ensuring activation of a full spectrum of muscle fibers. The myo-rep technique is used to achieve maximum fiber activation in the Supplemental B workout.

WIDE GRIP SEATED CABLE ROW: A study by Botton et al found the seated row to make the top 3 exercises for rear delt activation. Field experience indicates that a wide, neutral grip and a focus on establishing a mind-muscle connection with the rear delts can turn this effective trap builder into a rear-delt focused compound exercise.

BENT OVER DUMBBELL REVERSE FLYE: Similar to the dumbbell lateral raise, the reverse flye stands as a time-tested staple for rear delt development. The cue to push "out" with the back of the hands rather than "up" can emphasize horizontal abduction over scapular retraction and corresponding rear delt involvement.

STANDING DUMBBELL PRESS: When compared with the standing barbell press, seated barbell press and seated dumbbell press the standing dumbbell press came out on top in terms of total deltoid activation according to one study.15 Because this movement can not be loaded as heavily, it isn't included as the "main heavy movement" for this program, but it's just too effective not to include at all.

BANDED FRONT "Y" RAISES: This movement is included in Block 2 of the program as an intensity technique used to extend the work performed by the lateral delts on Banded Lateral Raises. Since the front delts are able to contribute without "taking over", the lateral delts are able to continue to contract in a way that they wouldn't by using the banded lateral raise alone.

1-ARM DUMBBELL UPRIGHT ROW: The rope upright row is swapped for this movement in Block 2 of the program for the sake of variety and novelty. Similar to the rope variation, this movement allows for a greater degree of freedom at the shoulder joint than the barbell, allowing for movement in the exact plane that feels most comfortable.

REVERSE CABLE CROSSOVER: The reverse pec deck is swapped for this movement in Block 2 of the program for the sake of variety and novelty. Given the similarity in overall movement pattern, both exercises can be said to effectively target the rear delts.



As long as total weekly volume requirements are being met and you are recovering adequately (i.e. not excessively fatigued, sore and/or getting weaker) then how you set up your split around this program is of relatively less importance.

Below are some suggested splits including how to incorporate the shoulder program into your weekly routine.

1. UPPER/LOWER SPLIT

Day 1: Upper body + Supplemental A

Day 2: Lower Body
Day 3: **Shoulder Day**

Day 4: Rest

Day 5: Upper body + Supplemental B

Day 6: Lower Body

Day 7: Rest

*Note: Include direct chest work such as horizontal presses and flyes on Day 1 and/or Day 5.

2. PUSH/PULL/LEGS/UPPER/LOWER SPLIT

Day 1: Push + Supplemental A

Day 2: Pull Day 3: Legs

Day 4: **Shoulder Day**

Day 5: Rest

Day 6: Upper + Supplemental B

Day 7: Lower



3. PUSH/PULL/LEGS SPLIT (8-9 DAY SPLIT)

Day 1: Push + Supplemental A

Day 2: Pull Day 3: Legs

Day 4: Shoulder Day

(Optional rest)

Day 5: Push + Supplemental B

Day 6: Pull Day 7: Legs Day 8: Rest

I would personally recommend running split #1 or 2 on this program for the sake of optimizing frequency and the convenience of fitting your full split within a single calendar week. The extra training days in split #3 allow for adequate recovery between sessions, however, the weekly frequency may be slightly sub-optimal. Given this, if this split allows you to train with either more intensity (effort) or with better adherence than the others, then you should go with it.

Remember that regardless of the split you choose, the most important thing is accomplishing the weekly arm training volume with the appropriate intensity (RPE). Because of the high shoulder training volume in this program, consider lowering chest and back volume by 1-2 working sets per exercise of what you'd normally do for at least 1-3 weeks to assess your recovery if needed.

IMPORTANT NOTES:

- Limit bench pressing and other horizontal pressing to at most 4-6 sets per week when running this program for the sake of recovery and body-part specialization.
- Avoid failure on all chest movements when running this program

COMMENTS FROM JEFF

For customer support email info@strcng.com.

To keep the cost of the program down, I did not include supplemental instructional videos for this program. If you're unsure about how to perform any exercises included, access to all exercises are just a quick Google/YouTube search away!

Thank you so much for your support! Enjoy training and feel free to show me your progress on social media by hashtagging #kiwisandshoulders and I'll make sure to check it out! Peace!

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- 1. Spineti J, de Salles BF, Rhea MR, et al. Influence of exercise order on maximum strength and muscle volume in nonlinear periodized resistance training. J strength Cond Res. 2010;24(11):2962-2969. doi:10.1519/JSC.0b013e3181e2e19b.
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