

## **Special Olympics Oregon 8-11 Week Training Plan - Powerlifting**

Powerlifting as a competitive sport is unique in that the training season is devoted to setting goals to improve the body's capacity in strength to perform very specific strength executions, the Squat, Dead Lift and Bench Press. As such, each athlete's training will be unique and specific to his or her body, abilities, fitness and recovery needs. This training plan includes sample training plans for each week depending on beginner, intermediate and advanced athlete abilities, but is mainly a tool to help individualize each athlete's 8 week program and goals toward a meaningful and successful competition experience. These materials are taken from the *2022 Special Olympics Powerlifting Coaching Guide*.

# The Squat

The Squat starts with the athlete taking the bar and weights from a rack and standing erect with knees locked. The athlete will then descend to a position where the crease between the leg and the upper torso is below the top of the knee. Without assistance, the athlete will ascend to the point where the body is fully erect and legs are locked and then return the loaded bar to the rack.

The squat uses primarily the muscles of the legs, hips and back and is a great measure of overall body strength.

## Rules for the Squat:

- Athlete starts with bar at correct location on back/shoulders
- Steps out of the rack and into an erect and motionless position
- Waits to receive the command “Squat”
- Descends to below parallel position (crease at the top of the hip is



Figure ii: Athlete at the bottom of the squat

- Without a referee command, ascends to an upright and motionless position with knees locked
- Waits to receive the command “Rack” and replaces the bar in the rack (may have assistance returning the bar to the rack).

# The Benchpress

The benchpress starts with the athlete lying flat on a bench with eyes looking directly up at a bar and weights. Feet are flat on the floor and, head and buttocks must remain flat on the bench. The athlete will bring the bar to full arms extension and then to the chest and return to full arms extension. The benchpress is mostly an upper body exercise using primarily the muscles of the chest, triceps and shoulders.

**Rules for the Benchpress:** Athlete is prone on bench with feet flat on floor, buttocks and head flat on bench (may use boxes under feet).



*Figure iv: Athlete at the top of the benchpress*

- Fingers closed around bar
- Bar at arms full extension and motionless– command “Start” is given





*Figure v: Athlete at the bottom of the benchpress*

- Pushes the bar to arms full extension (without going down) until motionless



*Figure vi: Athlete returning to the top of the benchpress*

- The command “Rack” is given.
- All of the above must be done with no raising of the head, buttock or feet.

# The Deadlift

The deadlift starts with the athlete standing facing the bar and weights with either a narrow or wide stance. The athlete will grasp the bar with knees bent, arms straight, and back straight. The athlete will then pull the weight to an upright position, with shoulders back and legs straight. The deadlift is mostly a back and leg lift and because the athlete is facing the audience with only the loaded bar and them on the platform, the lift adds a great deal of drama to an already exciting competition.

**Rules for the Deadlift:** Bar is on the floor in front of the lifter



*vii: Beginning of the Deadlift*

- Lifter grips the bar and begins lift on his/her own time (no command to start the lift)
- Pulls without supporting on thighs or bar going down



- When the lifter is standing erect and knees are locked the signal “Down” is given.



*viii: Top of the Deadlift*

- Lifter lowers the bar under control (cannot drop the weight) to the platform



## Equipment and Attire

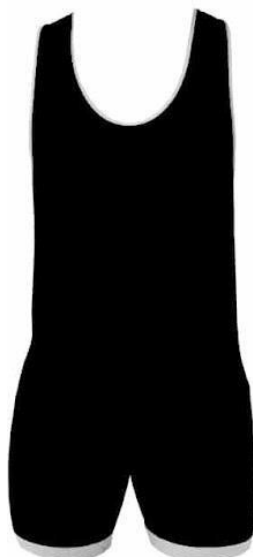
Special Olympics Powerlifting will only include Classic or Raw competition with both conventional and Unified Powerlifting divisions. Only non-supportive lifting equipment as defined by the rules will be worn in competition. It should be noted that while the following describe equipment that must comply with the rules during competition, equipment worn during training should be similar to completion equipment, especially as the athlete is closer to competition.

### Lifting Suit

The non-supportive lifting suit must conform to the following specifications:

- The suit shall be one-piece and form fitting without any looseness when worn.
- The suit must be constructed entirely of fabric or synthetic textile material, such that no support is given to the lifter by the suit in the execution of any lift.
- The suit's material shall be of a single thickness, other than a second thickness of material of up to 12cm x 24cm allowed in the area of the crotch.
- There must be legs to the suit, extending a minimum of 3cm and a maximum of 25cm, from the top of the crotch down the inside of the leg, as measured when worn by the lifter in a standing position. The suit may bear the logos or emblems off the manufacturer of the suit, of the lifters nation, of the lifters name, as per rule of "Sponsors Logos" for Special Olympics.

*Figure ix: Powerlifting Lifting Suit (Singlet)*





- Special Olympics World and Regional Games powerlifting competitions, all competitors must wear a lifting suit which conforms to the above stated specifications, the only exception being the full length aerobic suit worn in the bench press by athletes with physical disabilities.
- Muslim women shall be allowed to wear a tight fit, non-supportive, full body suit that covers the legs and the arms

## T-Shirt

A t-shirt must be worn under the lifting suit by all lifters in the Squat and Bench Press and the Deadlift. The t-shirt must conform to the following specifications:

- The shirt must be constructed entirely of fabric or a synthetic textile and shall not consist, in whole or part, of any rubberized or similar stretch material, nor have any reinforced seams or pockets, buttons, zippers, other than a round neck collar.
- The t-shirt must have sleeves. Those sleeves must terminate below the lifters' deltoid and must not extend onto or below the lifter's elbow. The sleeves may not be pushed or rolled up onto the deltoid when the lifter is competing.
- The t-shirt may be plain, i.e. of a single color.

## Briefs

A standard commercial "athletic supporter" or standard commercial brief of any mixture of cotton, nylon, or polyester shall be worn under the lifting suit. The briefs on the left are allowed while the briefs on the right are not allowed.



Figure xi: Briefs permitted to be worn under a lifting suit



Figure x: Briefs not permitted to be worn under a lifting suit



- Women may also wear a commercial sports bra.
- Swimming trunks or any garment consisting of rubberized or similar stretch material except in the waistband, shall not be worn under the lifting suit.
- Any supportive undergarment is not legal for use in IPF competition.

### **Socks**

- Socks may be worn. They may be of any color or colors and may have manufacturer's logos. They shall not be of such length on the leg that they come into contact with the knee wraps or knee cap supporter.
- Full length leg stockings, tights or hose are strictly forbidden.
- Shin length socks must be worn to cover and protect the shins while performing the deadlift



## Lifting Belt

Competitors may wear a belt. If worn, it shall be on the outside of the lifting suit and of the following material and construction:

- The main body shall be made of leather, vinyl or other similar non-stretch material in one or more laminations which may be glued and/or stitched together.
- It shall not have additional padding, bracing or supports of any material either on the surface or concealed within the laminations of the belt. The buckle shall be attached at one end of the belt by means of studs and/or stitching. Velcro is not allowed.
- The belt may have a buckle with one or two prongs or “quick release” type (“quick release” referring to lever).
- A single tongue loop shall be attached close to the buckle by means of studs or stitching.
- The belt may be plain, i.e. of single color, or two or more colors and with no logos, or may bear the logo or emblem.
- Dimensions:
  - Width of belt: 10cm maximum
  - Thickness of belt: 13mm maximum along the main length
  - Inside width of buckle: 11cm maximum
  - Outside width of buckle: 13cm maximum
  - Tongue loop width: 5cm maximum
  - Distance between end of belt and far end of tongue loop: 25cm maximum



## Shoes or Boots

Shoes or boots shall be worn and shall only be sports shoes/sports boots; Weightlifting/Powerlifting boots or Deadlift slippers. The above is referring to indoor sports, e.g. wrestling/basketball. Hiking boots do not fall into this category. Other shoe/boot design restrictions:

- No part of the underside shall be higher than 5cm.
- The underside must be flat, i.e. no projections, irregularities or a doctoring from the standard design
- Loose inner soles that are not part of the manufactured shoe shall be limited to one centimeter thickness.
- Socks with a rubber outside sole lining is not allowed in disciplines - Squat/Bench Press/Deadlift

## Knee Sleeves

Sleeves, being cylinders of neoprene, may be worn only on the knees by the lifter in the performance of any lift in the competition; sleeves cannot be worn or used on any part of the body other than the knees.

Must meet all the specifications of the IPF Technical Rules; knee sleeves which breach any IPF Technical Rule shall not be permitted for use in competitions.

Knee sleeves must conform to the following specifications:

- The sleeves must be constructed entirely of a single ply of neoprene, or predominantly of a single layer of fabric over the neoprene. There may be stitched seams of the fabric and/or of the fabric onto the neoprene. The entire construction of the sleeves may not be such as to provide any appreciable support or rebound to the lifter's knees.
- Knee sleeves shall be of a maximum thickness of 7mm and a maximum length of 30cm.
- Knee sleeves shall not have any additional strapping, Velcro, drawstrings, padding or similar supportive devices in or on them.





- When worn by the lifter in competition, knee sleeves must not be in contact with the lifter's suit or socks and must be centered over the knee joint. The Technical Controller shall reject any knee sleeves that have been put on the lifter using the assistance of any method such as the use of plastic slidings, the use of lubricants, and so on, or with the assistance of any other person other than that which is typically required by the athlete for assistance with wrist wraps or with dressing on a daily basis (such as assistance regularly needed with putting on personal items such as shoes, socks, etc.)
- A Female lifter is not allowed to use knee wraps or knee sleeves over a full body suit in Equipped or Classic competitions

### Wraps

Non-supportive wraps: Wraps made of medical crepe or bandage and sweatbands do not require Technical Committee approval.

Knee wraps may not be worn.

Wrist wraps shall not exceed 1m in length and 8cm in width. Any sleeves and Velcro patches/tabs for securing must be incorporated within the one meter length. A loop may be attached as an aid to securing.

The loop shall not be over the thumb or fingers during the actual lift.

Standard commercial sweat bands may be worn, not exceeding 12cm in width. A combination of wrist wraps and sweat bands is not allowed.

A wrist covering shall not extend beyond 10cm above and 2cm below the center of the wrist joint and shall not exceed a covering width of 12cm.



### Religious or Cultural Garments

Female Muslim lifters may wear a Hijab (head scarf) while lifting.

Other religious or cultural garments are permitted – the rules and or committee should be consulted to ensure these garments are in line with official guidelines.

## Training and Competition Equipment

A competition platform and combination squat and benchpress rack are considered the field of play for Special Olympics Powerlifting events. The 2.5 meter by 2.5 meter platform will be made of multiple sheets of plywood covered by carpet or a manufactured platform covered with carpet.



While a platform is not necessary for training, having a designated, safe area to train with racks to squat and benchpress on and a rubber surface to deadlift on is necessary. A combination squat and bench rack with spotting arms is required for all Special Olympics powerlifting competitions. This rack is very efficient for training as it quickly converts from squat height to bench press height and is a safe alternative to training without safety arms.



Competition bars and weights should be of the Olympic type and meet standards outlined in the [Special Olympics Powerlifting Rules](#). While the standard bar is 20 kilograms, the 15 kilogram bar may be used on the benchpress for athletes who cannot lift the 20 kilogram bar.

For training, the number of lifting stations and amount of weights and bars should be adequate for the number of athletes to be trained in a given time frame.

For a more details description of competition equipment refer to the [Official Special Olympics Powerlifting Rules](#).





## **SAFETY AND INJURY PREVENTION**

A key element to a successful strength and conditioning program is safety in the weight room. The following can help to assure athletes safety and prevent injury and loss of hard earned gains:

- Make sure all equipment is in proper working condition and that no safety hazards exist such as tripping or striking a part of the body
- Make sure that trained spotters are always used and attentive in the squat and bench. Stay close but don't make the athlete dependent on your support as this is not allowed in competition. Always use two hands when spotting.
- A back spotter should be used for the deadlift if there is a concern about the athletes balance.
- Always use collars on the bar with plates to prevent weights from sliding off the bar and possibly injury.
- Always use safety arms for the bench press that are set high enough to protect the neck but not so high as to allow the bar to strike them.
- Athletes must always use a thumbs around grip on the benchpress. This prevents the bar from slipping out of the hand and is a competition rule.
- One of the most common cause of injuries in powerlifting are due to poor form and athletes attempting heavier weights before they are ready. Do not have athletes attempt weight that they cannot do without good form
- For cleanliness and environmental health, keep equipment wiped down with a sanitizer and maximize ventilation and air flow as much as possible.

# Planning Training and Safety in Powerlifting

## Training for Powerlifting Competition

Special Olympics powerlifting programs require several things in order for athletes to be successful. This includes a commitment by coaches as well as others who can provide their knowledge, time and caring for athlete training and competitions. Athletes require the support of gyms and fitness centers and other places to train. Alternative training locations or equipment for training at home may also be needed.

Every Special Olympics athlete is different. Training must be applied to all in a personal and appropriate way. The strength levels of athletes as well as the resources (facilities and qualified coaches) and time available will be major determinates of the type of training that can be provided. These are important considerations for developing sustainable training plans.

## Key Elements of a Good Training Plan

Coaches should be aware of and constantly account for the following when planning an athletes training:

- Realistic Goals – Base on training history, short - long-term goals and time available to train
- Transition from mostly low intensity (how much weight) to high intensity over a training season. Lifting too much too soon can be a recipe for disaster.
- Transition from mostly higher volume (number of repetitions) to mostly lower volume within a cycle (8 to 12 weeks). Build the foundation first then make it stronger.
- Consistency and managing fatigue are the most powerful elements of a training plan. Also, be attentive to athletes lifting too heavy or too many sets/repetitions.

Athletes may be on different planes as it relates to their training experience and difference in ability to adapt to training. Understanding this difference and including



this in their training plan is crucial to them having fun and being successful. Whether an athlete is new to strength training or powerlifting, or has several years of lifting experience, each athlete is an individual and must apply good strength and power training principals to their daily, weekly and monthly routines.

A major consideration in training athletes is the time available to train. With time being such an important variable to athletes it is even more important for coaches to be schooled in the many variables at his or her disposal. Where some athletes are able to train three and maybe four days a week, it is likely that some will only be able to train twice a week or maybe only once. Coaches must plan according to how many days and how much time is realistically available to train.





An important guide for what days to train is that training days should be separated with an adequate amount of recovery days. If a workout has three training days that incorporates all three lifts then ideally each training day would have either one day between or two days between them. An example would be Monday, Wednesday and Friday training days with Tuesday, Thursday, Saturday and Sunday recovery days.



If working out two days a week then each training days would have two days or three days between them. An example of this would be Monday and Thursday training days with Tuesday, Wednesday, Friday, Saturday and Sunday recovery days. This same system would work with a four day "split" routine with a balance of either two or three days between competition and competition related exercises. An example would be to train squat and light deadlifts on Monday, bench and bench accessories on Tuesday, Deadlift and light squat on Thursday and light bench and bench accessories on Friday.

Still another individual variable to understand is the athlete's age. As lifters age they need to account for a slower recovery time and the growing sensitivity to exercise volume and even training frequency. Where a younger athlete may be able to include three to five sets of five, older lifters may do best with one to two sets of five or even one to three sets of threes initially as work sets. Additionally, younger athletes may be able to train each lift two to three times a week with medium to heavy weight while older athletes might only be able to train each lift twice or even once a week with medium to heavy weight.

The following suggested training programs as defined below include a limited number of exercises that have been proven to be effective in creating total body strength and power and should receive the majority of time and attention. These exercises are

designed around the minimum equipment of a squat rack, bench, bar and weights. This reduces the need for equipment while still allowing for maximum training response and recovery.

Make sure to have small (1/2 kg and 1 kg) plates for athletes who may need to make small jumps in weight each workout. It is much better to make small increases than large increases that might result in failure.

Programs also include a variety of options for athletes and based upon their current status and fitness. Suggested programs are intended to make the most out of the limited time coaches and athletes have available to train.

It is important to note that in strength training and especially powerlifting, nothing replaces consistency of training, gradual progression of intensity and commitment to quality execution of each lift every repetition, every workout.



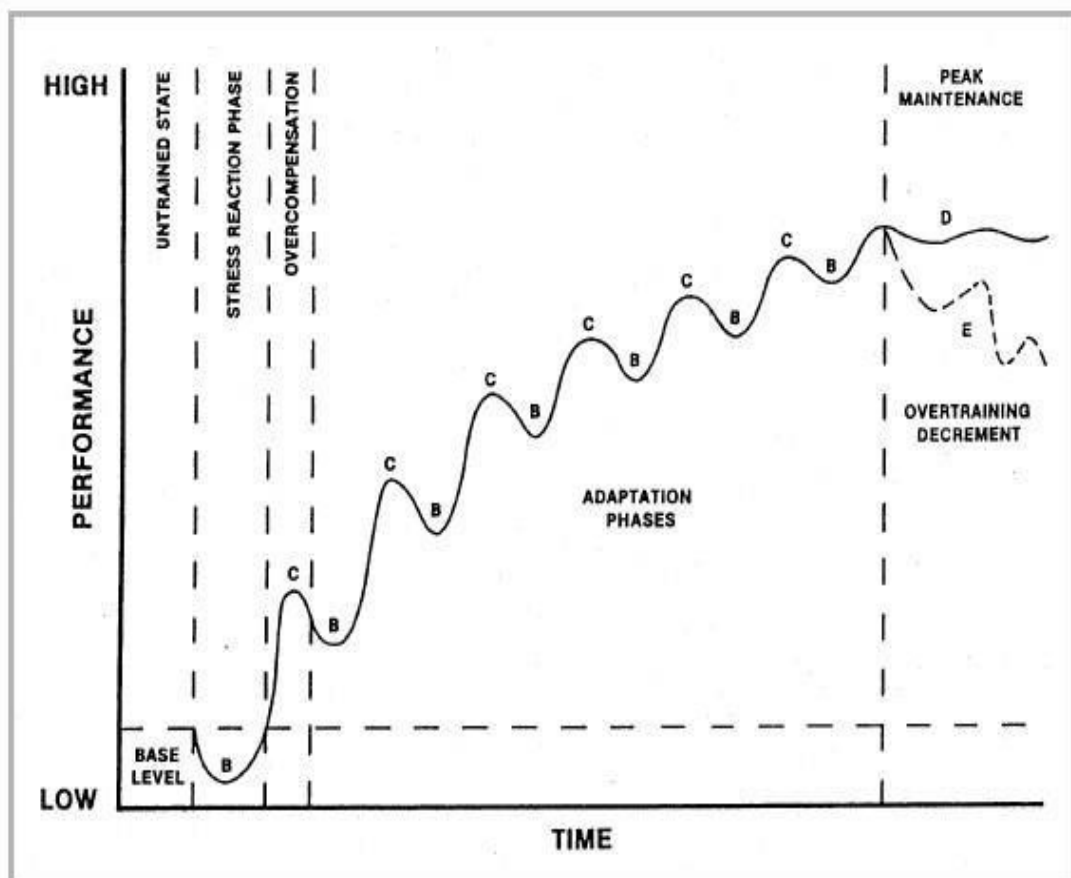
## Stress Adaptation and Strength

Understanding how the body adapts to stress is a critical tool for Special Olympics powerlifting coaches. Knowing this and how much volume (number of repetitions and intensity) as well as how much weight relative to a one repetition maximum an athlete needs is critical to their sustainable success.

For novice lifters the stress response and recovery process occurs primarily between workouts. As the lifter progresses to intermediate status, the stress response and recovery process occurs over mostly a weekly timeframe. As lifters advance closer to their natural potential, the response and recovery process occurs over a longer period of multiple weeks.

The following illustration shows the body's response to stress during a training cycle. Note that the one of the most important aspects of stress response is the recovery.

## Stress Response



Adapted from H. Selye's: *The Stress of Life*

It is important to pay attention to each athlete's progress and note their improvement on daily, weekly or monthly level and to plan for continued progress and competition based upon where they are in their individual training journeys.

The following suggested training programs provide basic guidance for program planning given the above and need to be understood and individualized for each athlete.

Strength training as it relates to powerlifting should be done with repetition range of two to eight repetitions. The higher the repetitions the more the training focuses on muscle building or hypertrophy. While big muscles are nice to have, there is a catch. Using higher repetitions can build muscles that don't necessarily lift more weights. Using repetitions over ten do not significantly contribute to functional strength as do repetitions of two to eight. Singles are not recommended because it is too easy to miss a set if you are having a bad day. If you miss one of two out of three lifts you still are successful lifting the highest weight prescribed that day.





## Prilipens Table

A very useful guide to how much weight to use within a particular repetition range is Prilipens Table (Below). The table provides ranges for different strength goals for each particular workout. Training too few repetitions in an intensity range will limit the desired growth in hypertrophy, strength or power and training with too many repetitions in an intensity range can lead to overtraining.

### Prilipens Table

<b>*Work Sets and Reps Table</b>		
<b>Intensity</b>	<b>Reps per Set</b>	<b>Optimal Rep Range(total)</b>
<b>Below 70% Hypertrophy</b>	5 to 8	18-to 30
<b>70-79% Hypertrophy/Strength</b>	3 to 6	12 to 24
<b>80-89% Strength/Power</b>	2-5	10 to 20
<b>90%+ Power</b>	1 -2	4 to 10

Determine 1 Rep Max based upon a reasonable increase from previous competition (3 to 5 %) or from a training max.

## **Training Programs and Programming**

For the reasons previously stated, the limits placed on training by facility availability, equipment and most importantly, time available to train, will greatly determine how the athlete's training plan will be laid out daily, weekly and monthly. Simplicity of the workout without too much variation of workout days and exercise changes, may also make it easier for athletes to be successful. The following examples of training variation attempts to walk the fine line of the ideal and the realistic, and of course what has been proven to work for novice, intermediate and advanced level lifters.

### **Novice Athlete Programs**

The novice designation is for those athletes with a very limited strength training history. Novice training (especially younger novice) takes advantage of the rapid adaptation experienced by athletes who are new to strength training.

Novice lifters have had such limited exposure to training that their faster nervous system adaptation allows them to make substantial strength gains over a fairly short time. Most novice athletes can add weight to their lifts every workout and continue to make gains for several weeks or even months.

A novice lifter can usually benefit from a medium number of repetitions which straddles the line between hypertrophy and strength. Using fives to increase muscle while also driving the response needed for greater strength output and muscle group coordination seems to work well for novice lifters. Additionally, sets of five repetitions seem to help athletes maintain consistent form. Too many repetitions can cause the novice lifters newly developed form to break down, setting the stage for failing a lift or possible injury.

For the first time novice athlete, a good starting point is generally to begin with a very light weight or just bodyweight and work on form for a few workouts before starting a weight progression. You can then add weight and work up to what the lifter is able to do for five repetitions with at least one to two repetitions in reserve. The following suggested novice training routines take advantage of the novice lifters rapid adaptation phenomenon and equally fast gains in strength.

Suggested Novice Three Day Program – Week 1		
Workout A – Monday	Workout B – Wednesday	Workout A – Friday
Squat 3x5	Squat 3x5	Squat 3x5
Bench 3x5	Press 3x5	Bench 3x5
Deadlift 1x5	Deadlift 1x5 or Row/Chin-Ups 3/5	Deadlift 1x5

Note: This reads 3 sets of 5 repetitions. These “work sets” can be done as “sets across” with each set being the same weight or ascending sets with work sets increasing by a small amount from 1<sup>st</sup> through 3<sup>rd</sup> set.

Suggested Novice Three Day Program – Week 2		
Workout B - Monday	Workout A - Wednesday	Workout B - Friday
Squat 3x5	Squat 3x5	Squat 3x5
Press 3x5	Bench 3x5	Press 3x5
Deadlift 1x5 or Row/Chins 3x5	Deadlift 1x5	Deadlift 1x5 or Row/Chins 3x5

### Considerations

- Workouts A and B are alternated M-W-F. The alternating workouts continue for the following week(s).
- As deadlifts become heavier, athletes can alternate workouts with rows or chin-ups. This may occur as early as four to six weeks into the program.
- Squats and deadlifts will initially jump 5kg a workout and taper off to 5 while bench and press will increase by 5 and decrease to 1.25kg increases

- For older novice athletes increases in weight per workout may need to be limited to 2.5kg in the squat and deadlift and 1.25kg in the pressing movements at the start then reduce to smaller jumps between workouts (this will require 1.25kg plates).
- Doing consecutively heavy squats 3 times a week may be too much for some novice athletes (especially over age 50) and may respond best by incorporating a lighter squat day (80% to 90% of heavy squat days) on their middle day of the week and eventually only squatting 2 times a week. Older athletes should not allow for more than 5–10 % reduction if using a light day on squat.
- If the athlete gets stuck at a given weight they can reduce fatigue by lowering reps or sets or instead of doing 3 work sets do 1 work set and 2 back off sets. Progression can then continue with gradually adding volume through a second then third set then adding weight as appropriate.
- If athletes cannot perform the squat correctly, have them use dumbbell squats or bench squats as a gateway to competition squats.





### Suggested Novice Two Day Programs

Another athlete training option is a two day program. This option may also be preferable for athletes who are active in other sports and/or only have two days a week to workout. This program requires at least 2 days rest between workout sessions.

Suggested Novice Two Day Program	
Monday	Thursday
Squat 3x5	Squat 3x5
Bench 3x5	Bench 3x5
Deadlift 1x5	Deadlift 1x5 (Chin-Ups or Rows 3x8-10)
Press 3x5	Press 3x5

Note that after several weeks of training with steadily increasing weights on the deadlift, more recovery may be needed. Chins or rows can be an effective alternative to one of the deadlift days in this case. Make sure these are actual chins and not the 'kipping' chins that use the legs and momentum to achieve more repetitions.

Remember that athletes will continue to add weight (even if it is a small increase) to each workout as long as they can.

## Suggested Novice One Day Program

This workout can be used with much older athletes who are in a very low state of conditioning or and/or athletes who are very limited in time they can train. They may transition to other programs as time and conditioning allow.

Suggested Novice One Day Program
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Any Day of Week
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Squat 5x5 (Ascending Sets)
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Bench 4x5 (Ascending Sets)
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Deadlift 1x5, 1x5 (Back off set)
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Press 3x5
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Chin-Ups or Rows 3 x 8-10
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It is recommended that athletes train for at least eight weeks in the novice program before entering competition. It is also recommended that no modifications to the training be made within the eight week period except for not training for at least two days prior to competition. This will allow the athlete to continue on the novice program after the competition or possibly transition into the Intermediate program as discussed below. If athletes choose to run another novice cycle with the adjustment suggested above, for the last three weeks, competition lifts might use three sets of three to better adapt to competition readiness.

## The Intermediate Athlete

The intermediate athlete has used the Novice program over several months to build stress and subsequent adaptation and recovery. They now need to adjust their training to account for a longer recovery and adaptation period of every week versus every two to three days. The intermediate program also accounts for an increased need for training variety between workouts using different intensities, volumes and in some cases exercises.

As athletes advance from novice to intermediate, they should be prepared to handle heavier weight and lower repetitions as they progress through a training cycle. This will add their ability to adapt to an even heavier training load the following week. These lower repetitions should also, allow the body to peak for competition as long as adequate recovery is provided. Additionally, intermediate lifters may use a greater range of repetitions overall as a part of the needed variety in volume and intensity in order to drive further adaptations and gains.

The intermediate program uses heavy light and medium (HLM) workouts over 3 days, a heavy medium workout over 2 days or a split system over 4 days to spread the training load over a week. Note that slightly more volume (number of repetitions and sets) is suggested for heavy days early in the cycle than with the Novice program. This additional volume and subsequent stress can be more easily handled with weekly versus daily recovery programming.

The following table provides an example of a Heavy-Light-Medium 3 Day program for intermediate level lifters. The 3 Days could also be: heavy day-Saturday, light day Monday and medium day-Wednesday. Which can make transitioning to competition a little easier.

## Suggested Intermediate Heavy-Light-Medium - 3 Day Program

### Starting Sets/Reps – Week 1

Heavy Day – Monday	Light Day - Wednesday	Medium Day – Friday
Squat 4x5	Squat 2x5 (80-85% of Hvy Day)	Squat 1-3x5 (85-90% of Hvy Day)
Bench 4x5	Press or Close Grip Bench 3x5	Bench 1-3x5 (85-90% of Hvy Day)
Deadlift 1x5	Chin-Ups or Rows 3x6-8	Deadlift 1x5 (85-90% Of Hvy Day)

### Considerations:

- Be careful about too much medium day volume (sets and repetitions) which can prevent athlete from performing at their peak on the next heavy day.
- Squats and deadlifts can increase from 2.5-5kg a week while bench and press will increase by 1.25-2.5kg per week.
- Younger athletes can handle a light day of as much as 20% less than heavy day and a medium day at 10% less but older athletes may tend to detrain with this amount of offset. They might get best results with 10 to 15 % less on light day and 3- 5% less on medium day.
- Older lifters may also need to reduce the competition lifts to three sets of three or four sets of two on heavy day earlier in the cycle to ensure adequate recovery. For older athletes, increases in weight per week may be limited to 2.5kg in the squat and deadlift and 1.25kg in the pressing movements at the start then reduce to smaller increases (this will require 1.25kg plates).



Note that for continued gains it is recommended that athletes not consistently go to maximum repetitions for each training session but allow for 1 to 2 repetitions in reserve.

### **Intermediate Heavy - Medium Two Day Program**

The Heavy Light Two Day program shown in the table below can be used by those older intermediate athletes/partners with less recovery capability or those who have other sport or heavy physical pursuits that would interfere with the 3 day program. Older lifters can use this program indefinitely or alternate with novice training after layoffs. Suggested weight increases per week are the same as for the three day program above.

Suggested Intermediate Heavy-Medium Two Day Program Starting Sets/Reps – Week 1	
Heavy Day (Monday)	Light Day (Thursday)
Squat 4x5	Squat 2x5 (85-90% of Hvy Day)
Bench 4x5	Bench 4x5
Deadlift 1x5	Deadlift 1x5 (85-90% of Hvy Day)
Chin-ups or Rows 4x6-8	Press 3x5

### **Intermediate 4 Day/Split Routine**

Split Routines can allow for a significant amount of work to occur over a four day period (vs three days). This allows for a greater amount of recovery time. Split routines also allow more time for conditioning work or single joint exercises that do not tax the nervous system. It is recommended that the 4-Day/Split Routine only be used by athletes who have trained regularly in the Novice routine and have completed some training with the 3-Day Intermediate routine. The following table depicts a four day a week Heavy Light Split program.

Intermediate 4 Day/Split Routine Program Option – Week 1			
Monday	Tuesday	Thursday	Friday
Close Grip Bench 3x6	Squat 4x5	Bench 4x5	Deadlift 2x5
Press 3x5	Stiff Leg or Deficit Deadlifts 3x5	Incline Barbell Press 3x6	Light Squat 3x5
Lying Triceps Ext 3x6	Barbell Rows 3x8	Barbell Press 3x6	Chin-Ups 3x8

Note that sets and repetitions shown are work sets and not warm ups.

Light day work (Squats and Close Grip Bench) will include a reduction in weight of from 5 to 15% of the heavy day loads for that lift. It should be noted that bigger, stronger lifters may require larger offsets than smaller lifters and lighter lifts. Also, older athletes may require lower volume (fewer sets/repetitions) and higher intensity (weight) for effective light day work.

The following includes some weekly progression options that can be applied to two day, three day and four day intermediate routines.

Note that Prilipens table above can be used to match the correct intensity and repetitions to the progression shown.

## Intermediate Program Sets and Repetition Progression

Note that light and medium days do not change

### *Option 1 – Increase in weight/Gradual reduction in repetitions per set*

This option uses heavy day increases of weight each week following guidelines above. Using the tables above, heavy day for the three day option is Monday, while heavy days for the four day option are Tuesday, Thursday and Friday. If repetitions are not completed with any of the prescribed sets, repetitions per set are reduced the following week. Sets and repetitions might look like the following:

<b>Week</b>	<b>Reps and Sets</b>
<b>Week 1</b>	5,5,5,5
<b>Week 2</b>	5,5,5,5
<b>Week 3</b>	5,5,5,4
<b>Week 4</b>	4,4,4,4
<b>Week 6</b>	4,4,4,3
<b>Week 7</b>	3,3,3,3
<b>Week 8</b>	3,3,3,2
<b>Week 9</b>	2,2,2,2
<b>Week 10</b>	Competition

For Option 1, light days use 2 sets of 5, then 3 sets of 3 for last few weeks while medium days use 3 sets of 5s for most of the program then for last few weeks 2 sets of 5 then a single set of 5. Light days only go up in weight a little each week or can stay the same for more than one week or drop according to the need for recovery before Medium day. Medium days similarly increases weight gradually or stays the same for multiple weeks.

### *Option 2 - Rep Progression*

The Rep Progression program incorporates a gradual increase or repeat of weight with a cyclical change in sets and reps. A typical weekly progression might be: 4x5 x 75kg, 4x5 x77.5kg, 3x6x77.5kg, 4x5x80kg, 3x6x80kg, 4x5x80kg, 3x6 x 82.5kg.

This conservative approach works well for older athletes. It also may work better for lifters that have a hard time tolerating even small increases in weight every week.

When the athlete is within six weeks of competition they can change the sets and repetitions to a progression of: 4x3, 4x3, 4x3, 5x2, 4x2, 4x2 with small (1.25kg to 2.5kg for bench and 2.5kg to 5kg on squat and deadlift) increases each week.

### *Option 3 – Weekly Step Down*

This option incorporates a weekly step down of heavy day reps from 3 sets of 5, 3 sets of 3, to 5 sets of 1 for all primary lifts over a three week period. The cycle is then repeated over each of the following 3 week periods with a little more weight each time.

Note that because this routine uses larger increases between heavy days and frequent use of 1 RM, it may be too taxing for some older athletes. Also note that because of lower volume of work experienced on the heavy day, additional work on light and heavy day becomes more important.

A modification of this option is: 4x6, 5 x 4, and 6 x 2. This variation of the 5,3,1 step down can provide some variety to athlete training as well as extra volume for some additional hypertrophy. It is important to note that as repetitions increase, there is a likelihood that proper form and technique will decrease. Make sure that athletes never sacrifice good form for more repetitions or weight!





## Structuring Sets

### Sets Across

Top or work sets for each primary exercise (Squat, Bench and Deadlift) can be structured several ways. Sets across uses the same weight and repetitions for all work sets. This makes it easier to plan for and track as it regards athlete and partner progression from week to week.

This training option would progress as: 67.5kg x 5, 77.5kg x5, 87.5kg x 3, 97.5kg x5, 97.5kg x5, 97.5kg x5, 97.5kg x5

The downside of this common progression is that it can be more mentally taxing to have to repeat the same top sets multiple times.

### Ascending Sets

Ascending sets is another option that incorporates top sets of ascending weight and the same repetitions. This progression allows the lifter to see the “light at the end of the tunnel” without the light being the train that is about to run them down.

Ascending sets progression would look like 67.5kg x5, 77.5kg x5, 87.5kg x5 90kg x5, 92.5kg x5, 95kg x5, 97.5kg x5.

The down side of using ascending sets is that the top weight for that day is done only after doing two other taxing weights on the way up.

### Drop Sets

Drop sets are sets that incorporate warmup sets then a single top or work set followed by one or more sets of reduced weight to build adequate training volume. This progression has the advantage of having less work up to and including the top set.

A drop set progression could look like: 67.5kg x5, 77.5kg x5, 87.5kg x1, 92.5kg x1, 97.5kg x5, 95kg x5, and 92.5kg x5.

Still another drop set progression that could be used to add additional volume is:

67.5kg x5, 77.5kg x5, 87.5kg x1, 92.5kg x1, 97.5kg x5, 95kg x5x2, and 92.5kg x5x2

The disadvantage of this progression is that after competing your top or target weight you still have a lot of work to do.

As indicated above, with the intermediate program, athletes may train for 8 to 10 weeks in a progression and jump from the end of the progression directly to competition. If no competition is available or desirable then the progression can continue for a few more weeks or a break can be taken and the progression can be restarted at a slightly higher weight.

### **Advanced Athlete and Partner Programing**

The Advanced Special Olympics athlete has generally had several years of training within the context of intermediate level training. The advanced lifter requires a longer time (multiple weeks) to acquire the training stress and adaptation that is needed to perform at the highest level. The advanced lifter, will also require further increases in variety of volume, intensity and exercises used as well as other training variables to continue to push the body to higher levels of performance.

It is important that athletes are not pushed too quickly into this level as they

1. May not be ready
2. May not have time for the increased levels of work and variety
3. They can make gains at the intermediate level for years

Advanced athlete programing should be planned in phases which address a particular aspect of preparedness. As with the Intermediate phase, training will generally build adaptation to higher volume and lower intensity while follow-on phases of training will focus on maximizing the development of strength with lower volume and higher intensity.

How long each phase will be is dependent on the individual athlete. While some lifters may need to focus more on higher volume and muscle building (more repetitions and/or more sets) over a training period, others may need to focus more on strength and power with proportionately lower repetition sets.

Programing for the advanced lifter can also include a mix of the above factors within each training week and can be effective with a coach that is knowledgeable in how to

implement that type of training. These training options can be used in conjunction with many of the principals outlined under the intermediate program.

The advanced program should follow a closer adherence to training intensity amounts. This will be depicted as percentages of single repetition maximums and provide weekly and monthly targets for which the lifter can gauge planned success by. While these percentages are important to the advanced lifter, they should not prevent reevaluation and adjustment if the lifters training performance is lagging.

Advanced programing can also include exercises that require equipment that is generally not needed in Novice or Intermediate level programing. This will provide for a greater mix of training stimulus needed to continue to make gains and overcoming sticking points.

Also note that the training variables incorporated in the Intermediate program can continue to be used in the advanced program. This includes the use of lighter training days that may be alternate forms of the competition lift.

Other advanced training variables are the incorporation of work set configurations (Sets Across, Ascending Sets and Drop Sets) based upon what works best for the athlete and/or partner at that time.

The following are examples of Advanced Programs based upon the number of days allocated for training:

### Three Day Advanced Option – First Training Week

Heavy Day – Monday	Light Day (Active Rest) Wednesday	Medium Day (Low Stress Volume Day) Friday
Squat 5x5	High Bar Squat 2x5 (80-85% Squat)	Box Squat 3x5 (95% of Hvy Day)
Bench 5x5	Close Grip Bench 3x6 (80-85% Bench)	Incline Bench 3x6 (85-90%Bench)
Deadlift 2x5	Pull Ups 3x8	Deficit or Snatch Grip Deadlifts 2x5
Dumbbell Bench 3x8	Press 3x6	Rows 3x8

### Four Day Advanced Option – First Training Week

Monday	Tuesday	Thursday	Friday
Squat 5x5	Bench 5x5	Deadlift 2x5	Close Grip Bench 3x6
Stiff Leg/Deficit Deadlift 3x5 (alt. weekly)	Incline Bench 3x6	High Bar Squat 3x6	Press 3x6
Rows 3x8	Dumbbell Bench 3x8	Pull Ups 3x8	Triceps Extensions 3x8

## Advanced Athlete and Partner Sets and Rep Progression (Heavy Day)

A simple linear option progresses at a steady rate which allows the body to gradually adjust to changes in intensity and volume.

Advanced lifters can use similar sets and rep progression as intermediate lifters or use a percentage based progression as outlined below.

### Example Linear Progression Reps and Sets for Heavy Day-

<b>% 1</b>											
<b>Rep</b>	74	76	78	80	84	86	88	90	92	94	Comp
<b>Max</b>											
<b>Sets/ Reps</b>	5/5	5/5	5/4	5/4	5/3	5/3	5/3	5/2	5/2	5/2	5/2

Advanced athletes should also be ready to include deload weeks into their training if accumulated fatigue or soreness dictates it. Deload weeks are most beneficial when volume (sets) are reduced and if possible intensity (weight) is maintained. Deloads week are commonly most beneficial at four week progressions and especially the last three to four weeks before competition. It should be noted that deload weeks are not always needed or beneficial and coaches must make the decision to deload based upon careful assessment of the lifters condition.

## Safety in Powerlifting Training and Competition

A key element to a successful strength and conditioning program is safety in the weight room. The following can help to assure athletes safety and prevent injury and loss of hard earned gains:

- Make sure all equipment is in proper working condition and that no safety hazards exist such as tripping or striking a part of the body
- Make sure that spotters are always used and attentive in the squat and bench. Stay close but don't make the athlete dependent on your support as this is not allowed in competition. Always use two hands when spotting.



- A back spotter should be used for the deadlift if there is a concern about the athletes balance.
- Always use collars on the bar with plates
- Always use safety arms for the bench press that are set high enough to protect the neck but not so high as to allow the bar to strike them.
- Athletes must always use a thumbs around grip on the benchpress. This prevents the bar from slipping out of the hand and is competition rule.
- Athletes should warmup with light movement such as walking in place, slow jog or exercise bike before beginning to lift to reduce the possibility of muscle injury. A cool down with stretching should be incorporated after training is over to enhance recovery.
- Do not have athletes attempt weight that they cannot do without good form
- For cleanliness and environmental health, keep equipment wiped down with a sanitizer and maximize ventilation and air flow as much as possible.



# Teaching Powerlifting Skills

## Basic Skills

Proper form is critical to receive maximum benefit from each primary and secondary exercise and to improve efficiency of lifts. Good form and technique are essential for preventing injuries. Because of particular body type or physical limitations, form may vary to a degree between athletes.

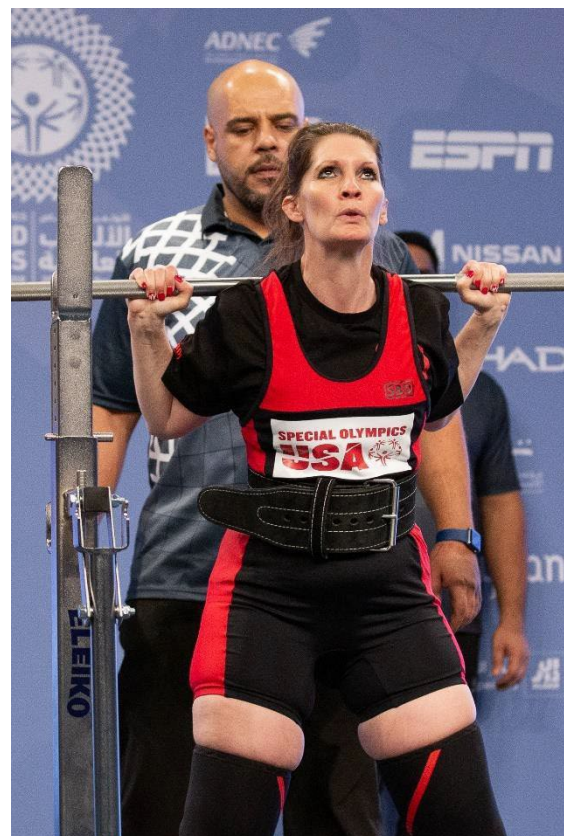
Along with having an arsenal of training knowledge, a Special Olympics Powerlifting coach needs to have a good mix of verbal, visual and tactile communications tools in their tool kit to be successful.

## Squat

This is probably the most difficult of the three power-lifts for Special Olympics athletes to master. However, with patience and repetition, most athletes can perform this lift. This exercise contributes to the overall strength of the athlete more than any other exercise. Even if the athlete is not going to compete in the lift, the squat should be included in training because of its many benefits.

It is often beneficial to have the athlete develop a base level of muscle tone through the use of easier-to-learn exercises such as dumbbell squats, goblet squats or bench squats prior to beginning competition

squats with a bar. When the athlete has developed this base, it is important to work on the form with no weight before actually squatting with the Olympic bar and plates, no matter how light. Repetition is the key here!



Find the proper stance for the athlete through trying both the narrow and wide stances. Because of the relative inflexibility at the calf and Achilles tendon, many athletes will not be able to squat with any degree of control with less than a shoulder-width stance. Use a wider stance with toes out, buttocks and knees back to allow the lower leg to be as vertical with the ground as possible, chest high, back straight, and chin up. This is easier for the athlete to learn and is more mechanically efficient.

As a way to teach the squat, instruct the athletes to start with hands straight ahead to improve balance. Stand in front of the athlete and have them go into a full squat position and then return. When the athlete has mastered this squat alternative change to the athlete squatting with the bar and add weights as they are ready.

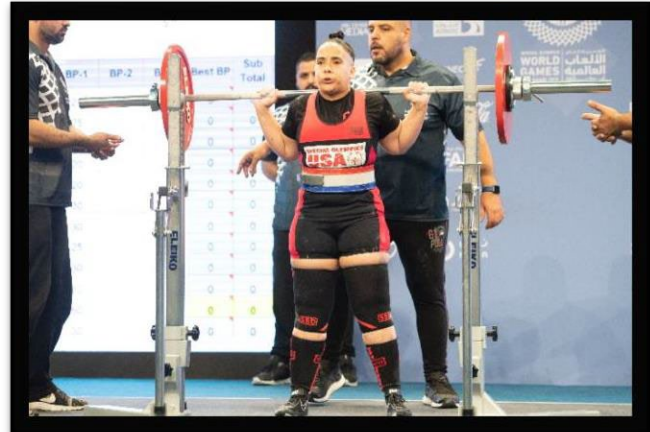
The powerlifting athlete should train for the squat the same way the athlete would compete in a squat competition. The signal “squat” at the beginning of the lift and “rack” at the completion of the lift allow the athlete to become completely familiar with the signals of the movement.





The following describes a competition format for the squat; athletes should be trained accordingly.

1. The lifter shall face the front of the platform. The bar shall be held horizontally across the shoulders, hands and fingers gripping the bar. After removing the bar from the racks, (the lifter may be aided in removal of the bar from the racks by the spotter / loaders) the lifter must move backwards to establish the starting position.



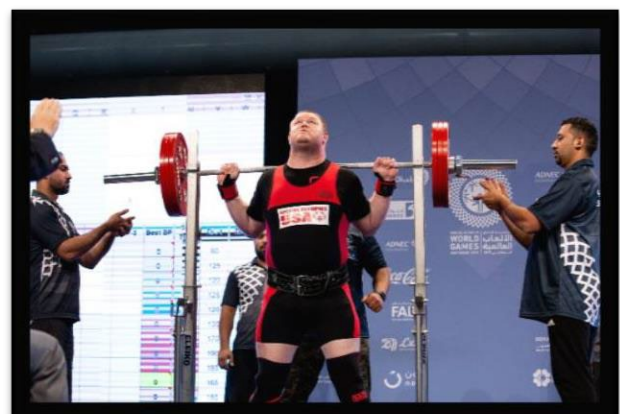
2. When the lifter is motionless, erect with knees locked, and the bar properly positioned, the Chief Referee will give the signal to begin the lift. The signal shall consist of a downward movement of the arm and the audible command "Squat".



3. Upon receiving the Chief Referee's signal the lifter must bend the knees and lower the body until the top surface of the legs at the hip joint is lower than the top of the knees. Only one decent attempt is allowed. The attempt is deemed to have commenced when the lifter's knees have unlocked.

4. The lifter must recover at will to an upright position with the knees locked. Double bouncing at the bottom of the squat attempt or any downward movement is not permitted.

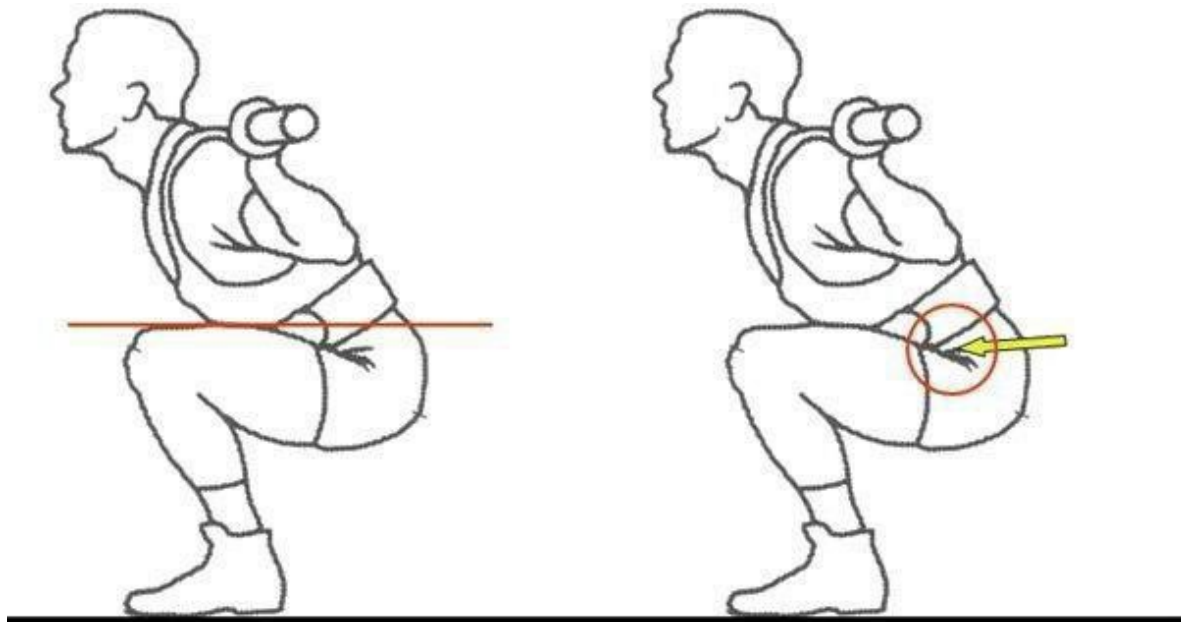
5. When the lifter is motionless (in the apparent final position) the Chief Referee will give the signal to rack the bar.



The signal to rack the bar will consist of a backward motion of the arm and the audible command "Rack."

- The lifter must then return the bar to the racks. For reasons of safety the lifter may request the aid of the spotter/loaders in returning the bar to, and replacing it in the racks. The lifter must stay with the bar during this process.

The diagrams below indicate the legal bar position and required depth in the squat:





## Coaching Tips for the Squat

- Demonstrate the squat to the athlete then have the athlete attempt the lift
- The coach's use of touch control and holding the athlete by the belt and shoulder can be effective in getting him or her into proper position and form. This should only be done in the early stages of learning the lift. If the athlete becomes dependent on a touch control or assistance, this will affect his or her performance in competition where touch and assistance are not allowed.
- Although not necessary, an athlete may wear a belt and knee sleeves while squatting. The spotter should stand behind the athlete.
- No assistance should be given to the athlete by the spotter unless it is for the purpose of teaching the technique or helping an athlete who cannot complete the lift. Always encourage your athlete to complete the lift.
- If needed, assist athlete with setup under the bar (place hands and feet) and with replacement of bar. This is best done standing behind the lifter.
- Use simple visual, tactile and verbal cues;
  - "Chest up"
  - "Elbows forward"
  - "Down, down, down"
  - "Up"
  - "Hold it"
- You may need to use hands to the chin, shoulders, belt to help athlete obtain and maintain correct positioning during the lift.
- Don't add too many cues at a time
- Provide critique and praise



A. Facing the Bar



B. Getting Under the Bar



C. In Position



D. Squat: Slightly Below Parallel Position



E. Fully Erect Position



F. Return to Rack



## **Bench Press**

The bench press measures the upper body strength of an athlete while lying in a prone position on a competition powerlifting bench and pressing weight in an upward direction. It is important that the position of the athlete on the bench and where they grip the bar maximize their ability to lift the weight.

Athletes should be positioned on the bench with their eyes looking straight up at the bar. The lifter must lie on their back with head, shoulders and buttocks in contact with the bench surface. The feet must be flat on the floor (as flat as the shape of the shoe will allow).

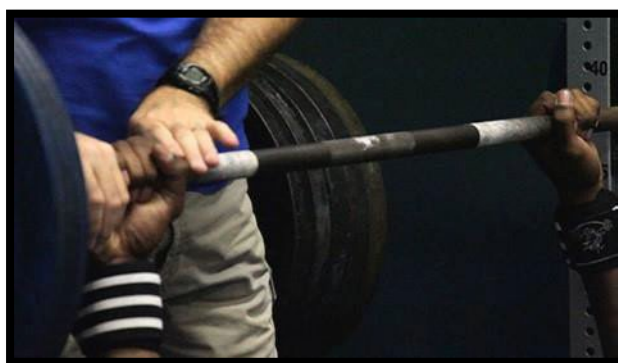
The athlete's hands and fingers must grip the bar positioned in the rack with a thumbs around grip. This position shall be maintained throughout the lift. The athlete's hands should generally grip the bar at shoulder width to a slightly wider than shoulder width.

To achieve firm footing the lifter may use flat surfaced plates or blocks not exceeding 30 cm in total height to build up the surface of the platform. Blocks in the range of 5 cm, 10 cm, 20 cm, 30 cm, should be made available for foot placement at all international competitions.

- The lifter must then return the bar to arm's length.
- When held motionless in this position the audible command "Rack" shall be given together with a backward motion of the arm.
- Any change in the elected lifting position during the lift proper (i.e. any raising movement of the head, shoulders, or buttocks, from the bench, or movement of the feet on the floor/blocks/plates or lateral movement of hands on the bar) will result in a no-lift.

The following describes a competition format for the bench press; athletes should be trained accordingly.

- The spacing of the hands shall not exceed 81 cm measured between the forefingers (both forefingers must be within the 81 cm marks and the whole of the forefingers must be in contact with the 81 cm marks if maximum grip is used). The use of the reverse grip is forbidden.



- After removing the bar from the racks, with or without the help of the spotter/loaders, the lifter shall wait with elbows locked for the Chief Referee's signal.
- The signal shall be given as soon as the lifter is motionless and the bar properly positioned. The signal to begin the attempt shall consist of a downward movement of the arm together with the audible command "Start."
- After receiving the signal, the lifter must lower the bar to the chest (the chest, for the purpose of the rule, finishes at the waistline or top of the belt), hold it motionless on the chest, after which the Chief referee will signal the audible command "Press."



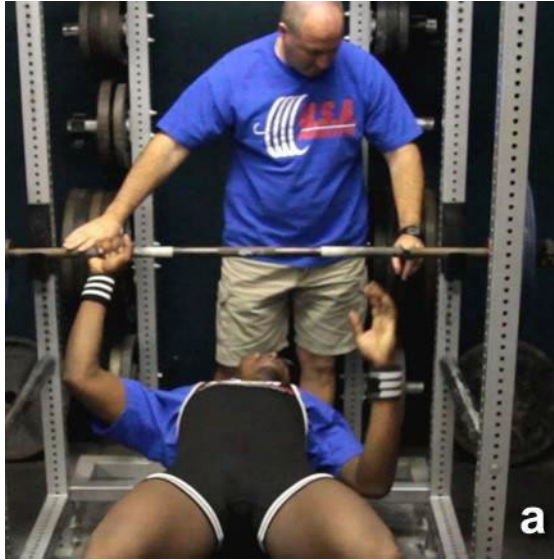
## Coaching Tips for the Bench Press

- Demonstrate the bench press to the athlete and then have the athlete attempt the lift
- As with the squat, the athlete should learn to perform the bench press with little or no initial resistance. A stick can be used to simulate the bar while the athlete performs a high number of repetitions. For the athlete to learn where the bar should rest, the coach may touch the athlete's chest at the sternum to illustrate where the athlete should bring the bar down.
- If needed, assist athlete in setting up on bench (body, hands and feet placement) and encourage "chest high" or "big air". You may need to start with adjusting athletes from the front on the bench then move to the rear of the bench during the lift.
- Make sure eyes are directly below the bar. Hands are placed where the athlete's forearms are vertical and elbows tucked when bar is paused at chest and feet are flat. You may need to move their hands and touch their chest where you want them to bring the bar.
- Hand off if allowed (training and lower level competition).
- Additionally, the coach may place a hand at the point where the bar will be locked out to give the athlete a target for completing the lift. Also note that in competition the coach must move out of the way of the head referee immediately after handing off if allowed.
- Use simple visual, verbal and tactile cues –"hold it", (before start, press or rack commands). "push", "don't stop" after press command.
- You may need to use hands as "targets" for initial lockout, placement on chest and final lockout.
- Don't add too many cues at a time
- Provide critique and praise





A. Placement of Athlete's Hands



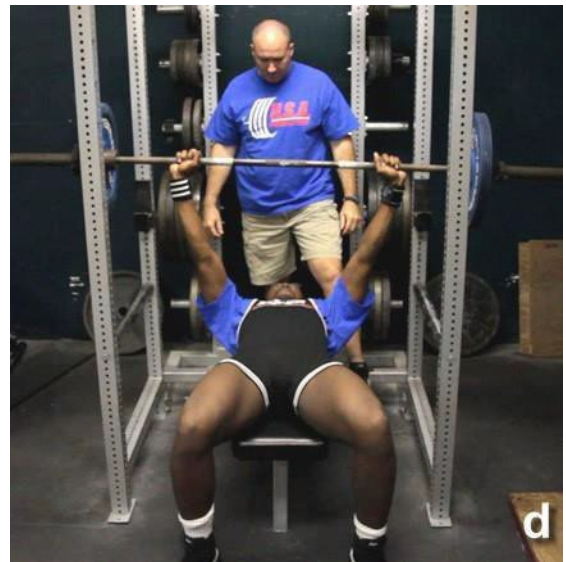
B. Placement of Athlete's Head



C. Coach Hands Off to Athlete



D. "Start"



E. Bar Motionless at Chest



F. "Press"



G. "Rack"



## The Deadlift

The deadlift, is one of the most dramatic of all lifts and it is often said that “the meet doesn’t start until the weight hits the floor”.

Correct form should always be practiced in the dead-lift. Using a straight back and pushing with the legs as much as possible will reduce the possibility of injury and provide for greater performance. Either the narrow or wide (sumo) stance may be used. Either stance can be used effectively by keeping the bar against the legs with arms straight down from the shoulders. This must be maintained whether athlete uses a wide or narrow stance. If narrow stance is used arms will be touching the legs on the outside and if wide or sumo stance is used, arms will be touching legs on the inside. If a wide stance is used, toes may be pointed outward in order to maximize pulling capability.

It is very important that the deadlift be done slowly with the head back, without bouncing or hitching the bar up the legs, and without rounding the back. The athlete must be taught to deadlift with head up, buttocks down, and back straight. A stick may be used to simulate a bar while establishing proper technique.

The following describes a competition format for the deadlift; athletes should be trained accordingly.

- The lifter shall face the front of the platform with the bar laid horizontally in front of the lifter’s feet, gripped with an optional grip in both hands and lifted until the lifter is standing erect.



- The lifter will then pull the bar to erect position with no support on the thighs and no downward movement of the bar. Any rising of the bar or any deliberate attempt to do so will count as an attempt. Once the attempt has begun no downward movement is allowed until the lifter reaches the erect position with the knees locked. If the bar settles as the shoulders come back (slightly downward on completion) this should not be reason to disqualify the lift.

- On completion of the lift, the knees shall be locked in a straight position and the shoulders back.
- The Chief Referee's signal shall consist of a downward movement of the arm and the audible command "Down." The signal will not be given until the bar is held motionless and the lifter is in the apparent finished position.



- The athlete should be familiar with the command "down" at the completion of the lift when the torso is erect, shoulders are in line with the torso, and the knees are straight. Also, athletes must not drop or slam the weight to the platform which will result in a no lift.

### Coaching Tips for the Deadlift

- Demonstrate the deadlift to the athlete then have the athlete attempt the lift.
- During the initial learning stage, the coach may hold the athlete's shoulders back and push down on the back of the athlete's belt to reinforce good form as weight is added.
- Athletes may also want to bend their arms as in a curl and should be reminded to keep their arms straight.
- The coach may stand in front of the athlete to help the athlete position the feet, place the athlete's hands on the bar, and position the head in an upward position.
- The coach should not assist the athlete with the lift, except during the learning phase or if the athlete is having extreme difficulty maintaining correct form.
- Bring them as close to the bar as practical.
- Provide simple verbal cues
  - "Butt Down"
  - "Shoulders Back"
  - "Arms Straight"
  - "Tight Grip"
  - "Pull"



- “Don’t Stop”
- “Lock It Out”
- Don’t add too many cues at a time.
- Provide critique and praise

A. Athlete Faces the Bar



B. Athlete Starts Lift in Their Own Time



C. Athlete Pulls the Weight



D. Erect Position with Knees Locked and Shoulders Back



E. “Down”



# Preparing for Competition

There are several things to consider when preparing athletes and partners for competition. These include a good training plan that is based upon the number of weeks left to train and the changing variables that are mentioned above. Also needed is a good competition plan.

A competition plan includes warmups, 1st, 2nd and 3rd attempts for lifts competed along with contingencies. The competition plan also includes information related to the athlete that is needed to best support them during the competition. This might be how they wear their belt, what music they like, and/or what “psych” words they might use when on the platform. Also included might be if they use blocks and what kind of setup they need prior to each attempt.

The following is a copy of blank competition plans that can be filled out in excel, copied on to hard paper, hole punched and hung around the coach’s neck so as to keep their hands free.

Download Here



Competition Plan for:		
Bodyweight	Lbs	kg
<b>SQUAT</b>		
Personal Best	Lbs	kg
Recent Best	Lbs	kg
		lbs - or - kg
Warmups - Weight X Reps	Opening Attempt	
1		
2	2nd Attempt	
3		
4	3rd Attempt	
5		
<b>BENCH PRESS</b>		
Personal Best	Lbs	kg
Recent Best	Lbs	kg
		lbs - or - kg
Warmups - Weight X Reps	Opening Attempt	
1		
2	2nd Attempt	
3		
4	3rd Attempt	
5		
<b>DEAD LIFT</b>		
Personal Best	Lbs	kg
Recent Best	Lbs	kg
		lbs - or - kg
Warmups - Weight X Reps	Opening Attempt	
1		
2	2nd Attempt	
3		
4	3rd Attempt	
5		
<b>COACH COMMENTS</b>		

Lifters Competition Plan Provided by Special Olympics Illinois





Also, it is a good idea to have a (separate) list of all of the items athletes and partners will need to bring to the competition including:

- Lifting shoes
- Singlet
- Long socks
- Correct underwear
- Lifting Belt
- Wrist wraps
- Personal chalk

Along with a competition plan and list of items that need to be brought, it is a good idea to plan on the logistics and timing of arrival at the venue, weigh-in, equipment check and warm-up. Also, plan your athlete's meals and hydration

Your athletes have worked so hard that you don't a misunderstanding about transportation to the venue or how long it will take your athletes to warm up, or who will warm your other athletes up while you are with an athlete in staging or at the platform to impact and athletes success. It is their time to shine and you are there to make sure nothing gets in their way!



## Glossary of Terms

Term	Definition
Adaptation	Body/muscle adjust to increased workload or training stress
Ascent	Raising of the bar in any lift
Commands	Referees instructions prior to, during and after lifts, as per the International Powerlifting Federation Rules
Descent	Lowering the bar in any lift
Erect Position	Standing upright, legs locked
Hitching	Excessive supporting of the bar on the legs during the dead lift, usually as a ratcheting motion up the leg
Leverage	The mechanical advantage or disadvantage applied during the lift by the position of the body part (upper leg, upper arm, lower back) based upon hand placements, foot placement, or joint positioning
Muscle Endurance	Ability of muscle to produce work for a relatively long period of time
Negatives	Exercises that focus most of the energy of the lift toward the extension of the muscle and not the contraction. An example is allowing the lifter to lift the bar in the bench press from extended position to the chest and then have spotter assist to extension. Negatives can result in soreness and injury and should be avoided
Overcompensation	Tendency of body to elevate performance capability as a response to workload or increased training stress
Overload	Workload exceeds that previously experienced

Parallel	The point in the squat where the lifter's hip joint is even with the knee joint. To perform an acceptable lift, the lifter must go lower than parallel
Peaking	Training at 90 percent or higher, usually only in the last three to four weeks prior to competition
Periodization	Change in volume and intensity of workload over time
Power	Strength with speed
Primary Lifts	Squat, bench press, and deadlift or exercises that are basically irreplaceable for their contribution to overall strength development
Primary Muscles	Largest muscles capable of producing the most work in the squat, bench press, and deadlift (thigh, chest, and back muscles)
Recuperation	Muscles return to normal state or homeostasis
Repetitions	Number of consecutive movements in an exercise between rest periods
Secondary Lifts	All supplementary lifts other than the squat, bench press, and deadlift or that directly contribute to overall strength development (bent row, stiff leg deadlifts)
Secondary Muscles	Smaller muscles (sometimes called synergists) that contribute to the work produced by the primary muscles directly or help with balance or control
Sets	Number of times a group of repetitions is performed
Spotting	The process of closely following the movement of the athlete during the lift with hands ready to assist if necessary. Except for during the learning period or for assisting when the athlete appears unable to make the lift, the hands should not be placed upon the bar or the athlete's body
Strength	Ability of muscle to produce force

Top Set	Heaviest set
IPF Formula	Formulas that use historically based numbers by which different body weights can be reconciled or levelled to compare lifting competition results. A coefficient is calculated based upon the lifter's formula number and the amount of weight lifted. The resulting coefficient score is used to place the lifter. The IPF Formula has one table for male lifters and one table for female lifters