Powerlifting

Coaching Guide 2022

Special Olympics

Acknowledgements

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They have helped fulfill the mission of Special Olympics: to provide year-round sports training and athletic competition in a variety of Olympic-type sports for people 8 years of age and older with intellectual disabilities, giving them continuing opportunities to develop physical fitness, demonstrate courage, experience joy and participate in a sharing of gifts, skills and friendship with their families, other Special Olympics athletes and the community.

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Special Olympics athletics welcomes your ideas and comments for future revisions of this guide. We apologize if, for any reason, an acknowledgement has been inadvertently omitted.

POWERLIFTING COACHING GUIDE AUTHORS

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Welcome

Welcome to the Special Olympics Powerlifting Coaching Guide 2022

This guide will aim to provide coaches with important information they can use to support Special Olympics athletes become better powerlifters. The information can best be used to establish both training and competition plans that will lead to each athletes success as a Special Olympics powerlifters. The guide also provides coaching techniques as well as guidance on safety, sportsmanship and wellness that are necessary for athlete sustainable success.

In order for powerlifting coaches to have a comprehensive understanding of the sport as well as overall Special Olympics rules and protocols, this guide should be read in conjunction with the Special Olympics Powerlifting Sports Rules document and the Special Olympics Rules Article 1.

Keep in mind that this guide is just one resource which may be useful to you as you progress through your career as a coach. As you develop your own style of coaching you will find other books, websites, magazines and coaches, which will help to shape your approach to coaching. Always be curious! Always be open to new ideas! Always keep you athletes at the heart of your coaching!

What is Powerlifting?

About Powerlifting

Powerlifting requires an athlete to lift more weight than their opponent in the squat, benchpress and deadlift. In competition athletes may lift in all three events or two (benchpress and deadlift) or even in single events (benchpress). Since powerlifting was introduced in 1983 at the Special Olympics International Games in Baton Rouge, LA, it has continued to grow worldwide as an exciting fun and easy to do sport. Unified Powerlifting has most recently been introduced as a way for Special Olympics athletes and their unified partners to train and compete together as a team.

Differences of Special Olympics Powerlifting

Special Olympics, Inc. allows for athletes with physical disabilities to wear a two-piece outfit with both upper and lower pieces being form fitting; either snug-fitting track trousers or snug-fitting shorts may be work. A full-length aerobic suit may be worn while performing the bench press. Additionally, lifting with a prosthesis is allowed and orthosis with shoes will be allowed.

Benefits of Powerlifting

By the nature of the training and competitive lifts required, Powerlifting requires athletes to give each training session and competition their undivided attention and effort. When lifting heavy weights in the squat, benchpress and deadlift, athletes must focus every muscle in their body on the task at hand, defeating gravity.

This focus and the success of each lift builds confidence, coordination, balance and strength. Powerlifting also can change an athlete's body composition and appearance like no other sport. This further adds to an athlete's self-esteem and confidence.

While powerlifting is considered an individual sport, being with other team members builds social interaction, integration and inclusion as the basis of well-being and equality. Training with their team can often be the highlight of and athlete's week. Training with a partner as part of Unified Powerlifting is a great way to carry community inclusion to it's highest level.

Events Offered in Powerlifting

The Squat

The Benchpress

The Deadlift

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

Figure i: 'Athlete' at the top of the squat

- 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 lower than the top of knee)

Figure ii: Athlete at the bottom of the squat

- Without a referee command, ascends to an upright and motionless position with knees locked

Figure iii: Athlete returned to top of the squat

- 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

- Brings the bar to the chest and when motionless, the command “Press” 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 weigh) to the platform

Basics of Powerlifting

Divisioning

Special Olympics Powerlifting competition requires a process for placing athletes in divisions that allow for fairness and equity. The following are factors that are used in divisioning athletes for Special Olympics powerlifting.

- Male/Female
- Events Entered (see above)
- Weight Classes (9 for men and 9 for women
- Age (Minimum age is 14)
- Ability (Based upon opening attempts/previous performance)
- Unified or Non-Unified

For a full description of weight classes, divisioning, unified powerlifting and other competition rules, read the Official Special Olympics Powerlifting Rules.

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.

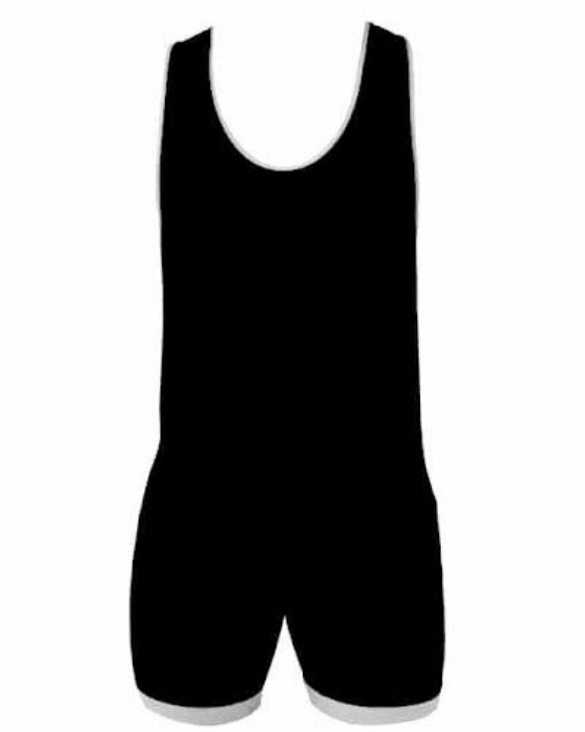


Figure ix: Powerlifting Lifting Suit (Singlet)

- 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 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 trucks 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.

Powerlifting Fitness and Safety

For a powerlifting program to be successful it is important that coaches incorporate an atmosphere of fitness and safety within the program. Keeping athletes healthy, fit and safe should be a goal both during and outside training sessions.

Special Olympics provides a range of fantastic fitness resources that coaches and athletes can use to educate themselves on best practice around physical activity, nutrition and hydration.

There are many health-related and performance-related benefits of fitness for Special Olympics athletes.

Benefits of Fitness for Athletes

- Enhanced sport performance through improved.
- Endurance/stamina.
- Speed and agility.
- Strength and power.
- Flexibility.
- Healthy weight.
- Increased energy level, improved focus, and better recovery after practices & games.
- Reduced risk for sport-related injuries.
- Decreased risk for illnesses and chronic diseases.
- Improved quality of life.

PHYSICAL ACTIVITY OUTSIDE OF SPECIAL OLYMPICS

It is vital that Special Olympics sports programs are not the only source of physical activity and exercise for athletes. As a coach, you should be encouraging your athletes to exercise every day and educate them on ways to stay active outside of organized sport practice.

There are numerous ways that athletes can exercise to stay healthy when they are at home. Walking, running, and biking are simple ways an athlete can exercise on their own and work on their cardiovascular fitness. Fitness classes like yoga, core strength, HIIT (This can counter the effects of a progressive resistance powerlifting training program and should only be included during off-season training and only with a knowledgeable coach) and many others are great ways for athlete to work on their fitness and physical health outside of organized sports practice.

Special Olympics offers the Fit 5 Guide for athletes and coaches to use. As a coach it is a great resource to use when educating your athletes on the benefits of physical activity to their overall health and to their sports performance.

FIT 5

The Fit 5 Guide is a plan for physical activity, nutrition and hydration that can help to improve athletes' health and fitness and make them the best athlete they can be. The Fit 5 Guide and accompanying Fitness Cards provide a fantastic collection of exercises that athletes should do to assist them to improve the skills needed for their sport. The exercises included focus on Endurance, Strength, Flexibility and Balance. In addition to these resources, there are a number of videos available here for athletes and coaches to view and use when performing these exercises as part of their training plans.

NUTRITION

Click here to access the Fit 5 Guide

Eating right is important to your health and your sports performance. Nutrition and Hydration are key points of athlete preparation and recovery for all forms of exercise. However, most athletes don't understand the connection between nutrition/hydration and sports performance. As a coach, it is important that you emphasize this connection and educate your athletes on correct habits. This is especially important for Special Olympics athletes, as they are at a higher risk for obesity.

It is vital to educate powerlifting athletes about the importance of timing their meals or snacks prior to training or competition. Inform your athletes of the risk of eating too close to the time they are to train or compete and educate them on the best times to eat and foods to eat to ensure they are efficiently fueled to perform.

Specifically, powerlifting athletes are recommended to eat high amounts of carbohydrates and protein. Some good sources of carbohydrate include fruit, vegetables, cereals, whole-grain bread and whole-grain pasta. Protein is also an important nutrient in the regeneration of muscle after training and competition. Some great sources of protein include milk, yogurt, beans, and lean meats like chicken and fish.

It is recommended to have your last meal or snack at least 90 minutes before completing any exercise. This ensures the athlete can digest the food and it will be available as a fuel source for them when training or competing.

Because of the need for muscle recovery, powerlifting athletes should eat protein and some carbohydrates soon after lifting in the form of a meal or supplement. Older athletes may require more protein to sustain the recovery process.

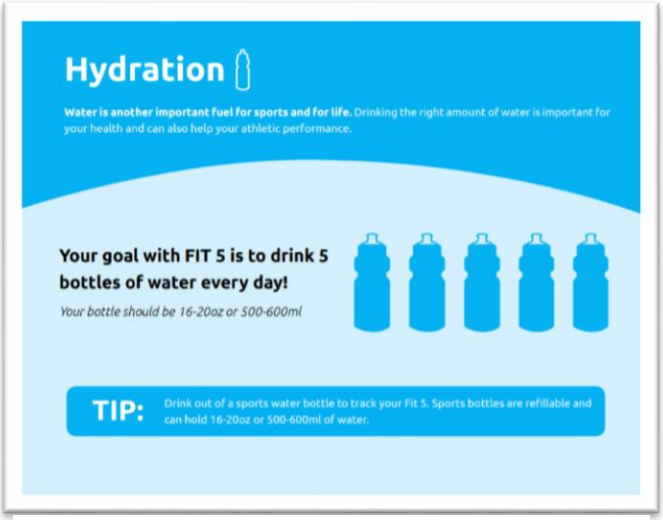
You can utilize the nutrition and hydration section in the Fit 5 Guide to educate your athletes on basic principles. The nutrition, hydration and exercise tracker can help your athletes to pay more attention to these elements at home.

Task:

Consider taking 5 minutes at the end of practice to cover nutrition and hydration tips. Educate parents and carers on the information that's shared with athletes so they can help athletes eat healthy at home.

HYDRATION

Water is another important fuel for sports and for life. Drinking the right amount of water is important for your health and can also help your athletic performance. Coaches should be educating their athletes about the benefits of drinking enough water every day.



Click here for the Fit 5 Guide

The Fit 5 Guide has a hydration section which provides information for coaches about quantities of water that athletes should be consuming, signs of dehydration in athletes, and the best choice athletes can make when looking for a drink. Coaches should encourage athletes to take responsibility for their own hydration before, during and after training. Follow this simple guide below on how you and your athletes can keep hydrated before, during and after training sessions.

Encourage athletes to drink one bottle of water (16-20oz/500-600ml) an hour or two before practice so they show up fully hydrated. Remember to pause for drinks breaks during a training session. It's recommended that coaches pause every 15-20 minutes to give your athletes the chance to rehydrate as they are losing water while exercising. Encourage your athletes to drink one bottle of water (16-20oz/500- 600ml) during a training session to make sure they do not get dehydrated. When drinking, athletes should take many small sips of water instead of gulping it down as this can sit in their stomachs and cause discomfort when exercising! Encourage athletes to drink water after practice to help them recover from their workout.

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.

POWERLIFTING WARM-UPS AND COOL-DOWNS

Warm-Up

A warm-up is critical to successful strength and power development. Warm-ups prepare the muscles for the stress of lifting weight through the full range of motion. Warm-ups should start with an activity that increases the heart rate as well as muscle temperature, blood flow and elasticity and prepares the body for lifting heavy weight.

Purpose of a warm-up

- Gradual increase in body temperature.
- Gradual increase in heart rate.
- Gradual increase in breathing rate.
- Increase in blood flow to working muscles.
- Increase in tension and range of motion of primary muscle groups
- Mental preparation

Athletes should warm-up with light movement such as walking in place, slow jog or exercise bike before beginning to lift to reduce the possibility of muscle injury.

As you can see, warm-ups are extremely important for athletes' preparation for physical activity. Increasing body temperature and blood flow to working muscles is key for athletes to prevent them from sustaining injuries while exercising. A gradual increase in body temperature reduces the chance of an athlete sustaining muscle and tendon injuries while an increase in blood flow to working muscles ensures a delivery of import fuels that are required for energy production. In addition to this, warming up helps athletes increase the range of motion they have in their muscles. This adequately prepares athletes' working muscles for the movements they will be performing (stretching, generating power, stabilizing the body, etc.). Finally, an adequate warm-up will mentally prepare the athlete for exercise, this includes increased focus at practice or in competition, positive self-talk, or improved motivation knowing they are physically prepared to exercise.

It is recommended to carry out a **comprehensive, sport specific warm-up** for **at least 15 minutes** prior to starting training activities or competition.

Comprehensive: Warming up all parts of the body. Focus especially on the main muscle groups involved in powerlifting, including the legs, hip flexors, back, chest, shoulders and abdominals.

Sport Specific: Performing movements your athlete will carry out during practice. For powerlifting you might include calf raises, exaggerated arm swings, squats and balance exercises.

Warm-ups should include three specific components:

1. Aerobic activity to raise heart rate

This can be walking, slow jogging and skipping

2. Dynamic Stretching

Dynamic stretching involves active, controlled movements that take body parts through a full range of motion.

Dynamic stretching can be done following the Fit 5 Dynamic Stretching Guide

3. Sport Specific Movements

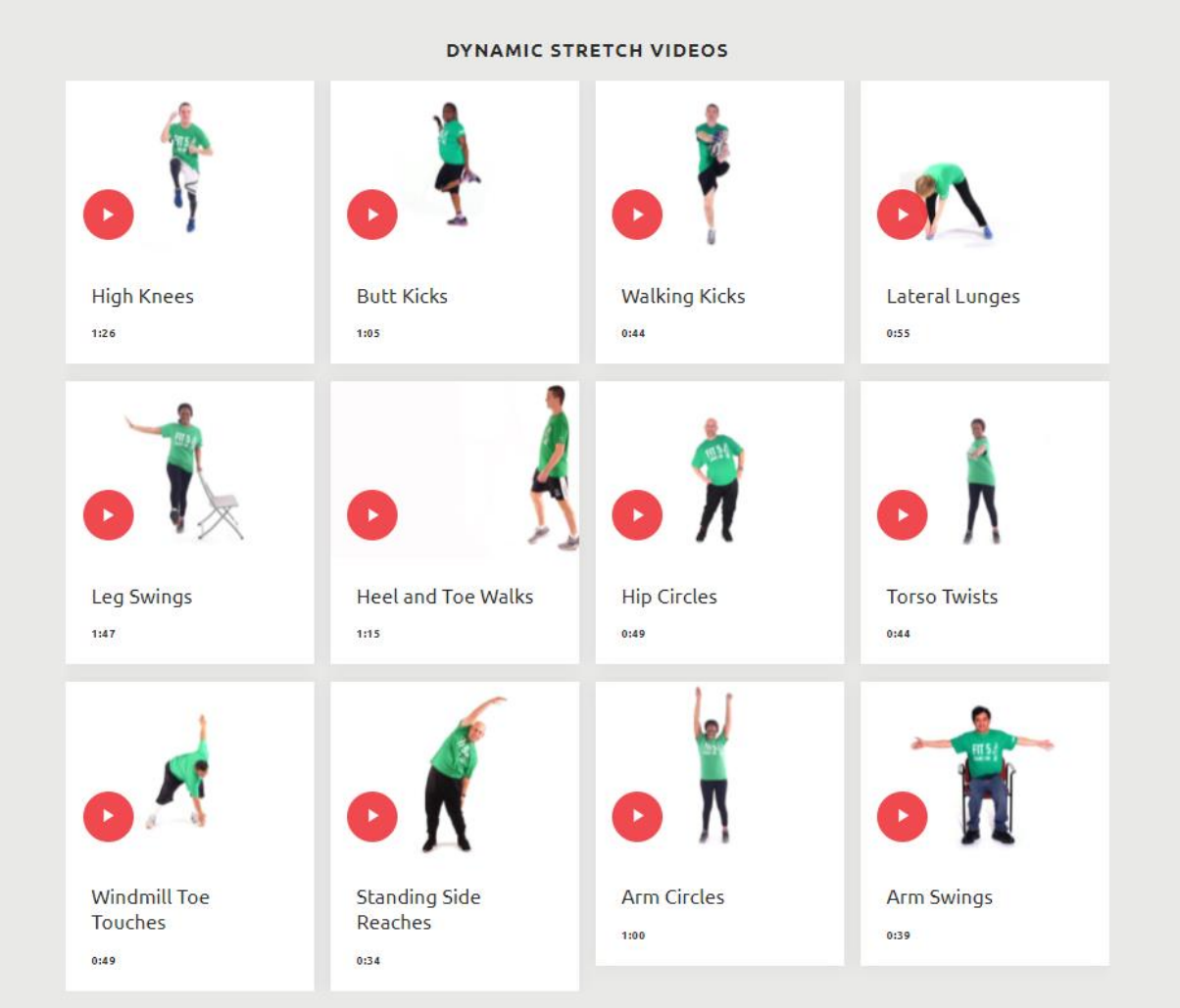
Skills or movements which are core to your sport.

Movements that the athlete will complete in training or competition

Dynamic stretching should be done with no weight and at a slow and controlled pace. This can be done effectively with a body weight version of the primary lift. A lightweight bar (e.g. a plastic pipe) is a useful tool that athletes can use for dynamic stretching of the legs, chest and shoulders, back and abdominal muscles by simply replicating the powerlifts. This combines the value of dynamic stretching with the need to prepare physically and mentally for executing each of the powerlifts. Other forms of dynamic stretching can also be effective in preparing the athlete for training and competition.

A progression of weight from the bar to weighted reps and anywhere from 2-5 warm-up sets will also prepare the athlete for lifting the goal weight for a training session or competition. If balance is a problem for athletes, a few minutes spent walking in a straight line or other balance exercises from Fit 5 during or between training sessions.

Note that excessive warm-up and stretching before a workout can potentially add fatigue and even overstress the muscles, so be careful not to overdo it.



Cool-Down

When your training, practice or sport session is complete, you should always cool-down. It is just as important to have a good cool-down as it is to have a good warm-up. A good cool-down allows the body to gradually return to a state of rest and enhances the body's recovery. A typical cool-down includes light aerobic activity followed by stretching. The aerobic activity should gradually decrease in intensity/difficulty. It could be a short jog/walk at 50% intensity with some stretches (follow the Fit 5 Dynamic Stretching Guide), led by the athletes, at the end.

Cool-downs are perfect opportunities for coaches to carry-out a debrief session with their athletes and review the session they have just had. Ask your athletes some **open,**

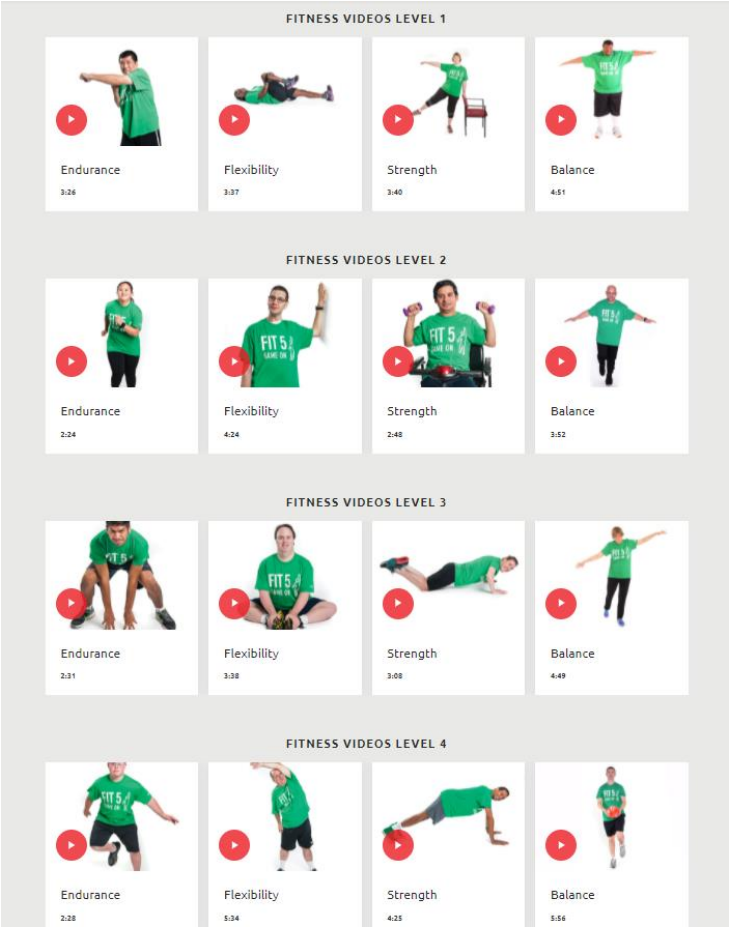
informative questions that will make them think about the session and what they would have learned. In addition to the athletes reinforcing the coaching points you have given them, it also gives you, as a coach, the opportunity to see what works for each athlete as an individual.

Coaches should also use this time at the end of practice to encourage healthy habits. Educate athletes on the importance of staying active and eating healthy outside of practice.

Open Questions – Questions that cannot be answered with 'Yes' or 'No', for example: "What part of the training session did you find challenging today?"

Informative Questions – Questions that provide useful information for you, as a coach, and for the athlete. "What part (if any) of the training session did you enjoy most today?"

As a follow-up to a training session, slow gradual stretching movements can be helpful for muscle recovery. These movements can be combined with slow movement like walking in place, torso rotation, arm circles and toe touches.



POWERLIFTING SPECIFIC CONDITIONING

Sport Specific Conditioning is covered through the training sections that follow as well as discussion above.

Examples of Powerlifting specific conditioning could be Balance exercises, Strength exercise, and Flexibility exercises. All of these can be found in the Fit 5 Fitness Cards and Videos.

The Role of the Coach

For more information on your role as a coach, read our Special Olympics supplement available here

Sports Psychology

What is Sports Psychology?

Sports Psychology is a name given to a topic that includes many different areas related to sports performance. These include (Association, American Psychological, 2021):

- Goal setting;
- Imagery and performance planning;
- Athlete motivation
- Handling disappointment and poor performance.

Ultimately, Sports Psychology relates to how an athlete's mindset assists or hinders their athletic performance, be that training, competition, or recreationally.

As a coach, your role is to assist an athlete to perform at their best – this includes psychologically as well as physically. This section will briefly discuss a number of Sports Psychology concepts that will assist you in your coaching of Special Olympics Athletes.

For further information on the topic, it is recommended that you explore expert research on the topic such as academic articles, online learning courses, podcasts, and books.

Key Areas of Sports Psychology:

Motivation:

What is motivation?

Often we consider motivation to be making that last lift in the gym, doing that last run up the hill, and going out to win in the final of a competition. However, these are only a select few examples. Most of the time motivation can be; going to training, sticking to your exercise routine, or drinking all of your water for the day.

Motivation is goal-dependent. This means that each person will have different motivation because each person will have different goals.

According to Burton and Raedeke in *Sport Psychology for Coaches* (2008), great coaches know that they don't give athletes motivation. Rather, they create the conditions or team climate in which athletes motivate themselves. Coaches do this by recognizing the importance of intrinsic and extrinsic motivation.

Intrinsically Motivated Athletes participate for the love of the sport. They enjoy the process of learning and mastering difficult sport skills and play for the pride they feel when working hard toward accomplishing a challenging goal.

Extrinsically Motivated Athletes participate in sport in order to receive praise, to win, or to avoid punishment. The process is often not as enjoyable, they don't enjoy completing difficult tasks and often results in sport drop-out down the line.

Extrinsic motivation can also be useful in assisting athletes to learn a skill or try a new task. Using praise as a motivator can help to encourage athletes to explore or complete a task they normally would not attempt. However, extrinsic motivation should not be used long-term, and should be phased out over time if it is being used to help motivate athletes to complete tasks.

For example, a golfer does not like hitting the ball out of long grass and is willing to take a shot penalty to move the ball. Encourage the athlete attempt the shot out of the long grass and praise them for their effort. Over time, as the athlete becomes more comfortable performing the shot and continues to hit the ball out of the long grass, praise should be reduced.

Special Olympics carried out an Athlete Satisfaction Survey. This survey aimed to find out why athletes participated in Special Olympics sports and their motivation to do so. The results can be seen in the pie chart below.

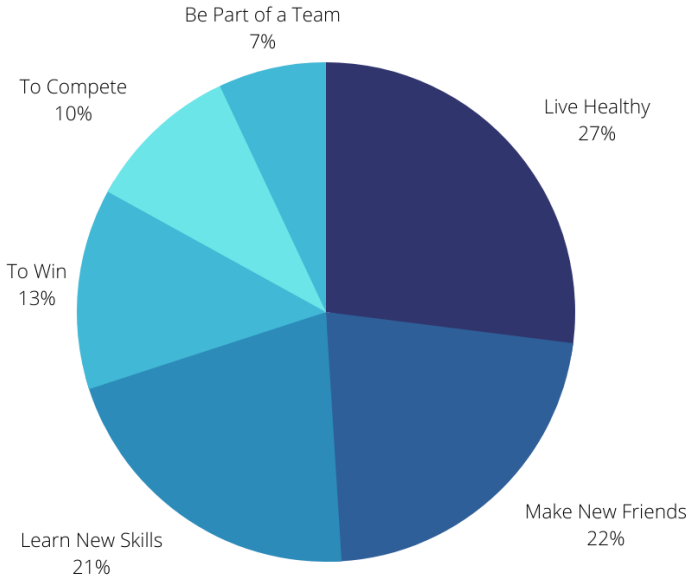


Figure xiii: Athlete Satisfaction Survey Results - Why athletes participate in Special Olympics Sport. These can be considered to be sources of motivation for athletes and should be considered in your decision making as a coach

Motivation Myths:

Motivation Myth 1: Athletes are either motivated or not motivated

Some coaches believe that motivation is simply a personality trait, a static internal characteristic. They believe that an athlete either has motivation or doesn't. They don't believe motivation is something coaches can develop. For these coaches, the key to having a motivated team is to find and recruit athletes who have the right personality. However, while some athletes are, in fact, more motivated than others, this view does not provide any direction or guidance on how coaches can help develop and sustain athletes' motivation. The fact is, coaches can help athletes develop motivation.

Motivation Myth 2: Coaches give athletes motivation

Other coaches view motivation as something they can inject into their athletes on demand, like a flu shot, by means of inspirational pep talks or gimmicks. They may use slogans, posters, and bulletin board quotes from upcoming opponents. These strategies may be helpful, but they are only a small piece of the motivation puzzle. There is much more to the story—motivation is not something coaches can simply give their athletes.

Motivation Myth 3: Motivation means sticks and carrots

Some experts suggest that effective motivation means using carrots (rewards) and sticks (punishments) to drive athletes to do things they would not do on their own. This may seem innocuous, but think about it on a deeper level. It assumes that athletes don't want to do something, so the coach will provide motivation to make them do it through punishments or rewards. Coaches who emphasize the stick, in the form of chastising, criticizing, yelling, coercing, and creating guilt, often find themselves swimming upstream. No matter what they try, they meet resistance and negative attitudes. Not only is this approach ineffective, it saps the enjoyment out of sport. Coaches must understand athletes' needs in order to create a team culture that naturally motivates them.

Confidence (through Goal Setting)

Sports confidence is the belief in yourself to execute or complete a task or skill relevant to the sport or activity you are participating in. Sport confidence should be gained through consistent execution of the skill or task in a controlled environment (training session). This can then be applied in a more chaotic environment (competition). For example; Maureen is confident she can complete the 100m breast stroke in her local competition because she has completed this particular stroke many times in her training.

An athlete with lack of self-confidence doubts whether they are good enough, whether they have the qualities necessary for success (Plakona, Parčina, Ludvig, & Tuzović, 2014).

1. Developing sport confidence in athletes helps to make participation fun and is critical to the athlete's motivation.
2. A considerable amount of anxiety is eliminated when athletes know what is expected of them and when they have to be prepared.
3. Mental preparation is just as important as skills training.
4. Progressing to more difficult skills increases the challenge.
5. Dropping back into easier skills increases one's confidence.

Developing Self-Confidence through Goal Setting

Realistic yet challenging goals for each athlete are important for the motivation of the athlete, during both training and competition. Accomplishing goals at practice through repetition in settings that replicate the competition environment instill confidence. Sport confidence in athletes helps make participation fun and is critical to the athlete's motivation. Setting goals is a joint effort between athletes and coaches.

Goal setting must be a collaborative effort. At the end of the day, the goals are set for the athlete for what they want to accomplish, not what their coach, parents, friends, or family want them to accomplish. A coaches' role is to assist the athlete is creating the goals that align to their desires, and to keep the athlete on track to achieve those goals.

Goals should be:

1. Structured as short-term, intermediate and long-term.
2. Viewed as stepping stones to success.
3. Created and accepted by the athlete.
4. Used to establish the athlete's training and competition plan.
5. Flexible
6. Written down
7. Identified as either performance goals or practice goals
8. Achievable - Sometimes athletes will need to seek support to accomplish their goals

Following the SMART Goals model is a simple way to set goals for your athlete in a collaborative and logical way.

Handling Disappointment (performance/success oriented/injuries)

Disappointment can present itself in many different ways for an athlete. This can be:

- Poor/Below expected performance (in training or competition)
- Good performance without the desired outcome (winning/scoring/placing)
- Disappointment for others (teammates/friends)
- Acquiring an injury (meaning inability to compete/perform)
- Not receiving praise (from coach/friend/family)

And many more reasons!

As a coach, it is essential that you assist your athletes in handling disappointment. Not only is this beneficial to them in sport, it is a life skill that can be applied in almost any other context (such as job applications, studying for school/college, acquiring an illness, etc.).

How disappointment can be seen in athlete behaviour:

- Anger
- Frustration
- Going within themselves
- Feeling overwhelmed (tears)
- Loss of focus
- Loss of motivation to train/compete
- Loss of interest in the sport

Disappointment often presents itself as stress in athletes. Special Olympics offers the Strong Minds program to assist athletes in learning how to cope with stress. This can be stress from competition or the stress that comes from daily tasks.

Check out the Strong Minds page for all resources required.

A useful tool for coaches working with athletes showing signs of stress would be the Strong Minds Coach's Playbook. These strategies can help athletes with the stresses of life and sport, and promote healthy thoughts and coping mechanisms.

Strong Minds Tips for Stress

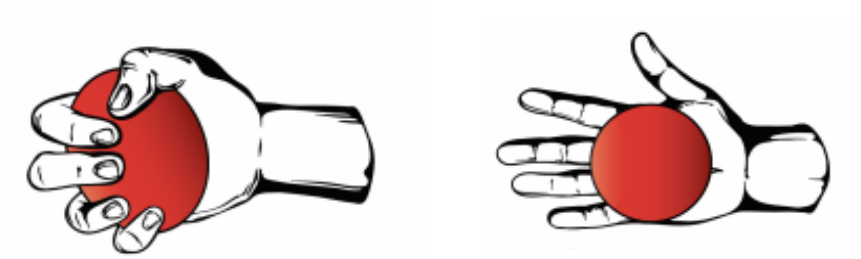
Coach's Playbook

Special Olympics **Strong Minds**

Strong Minds is an interactive learning activity focused on developing adaptive coping skills. Competition provides a natural opportunity to develop active strategies for maintaining emotional wellness under stress, such as: thinking positive thoughts, releasing stress and connecting with others. During Strong Minds, your athletes will learn the following strategies and will benefit greatly if you can incorporate these strategies into practice and games.

Station 1

1. Squeeze the ball for 3 seconds.
2. Release the ball and any tension.



Coach Recommendations

- On the way to a game or competition
- During a pre-game team talk
- After the game during a team talk
- For an athlete sitting on the bench or in between turns/games

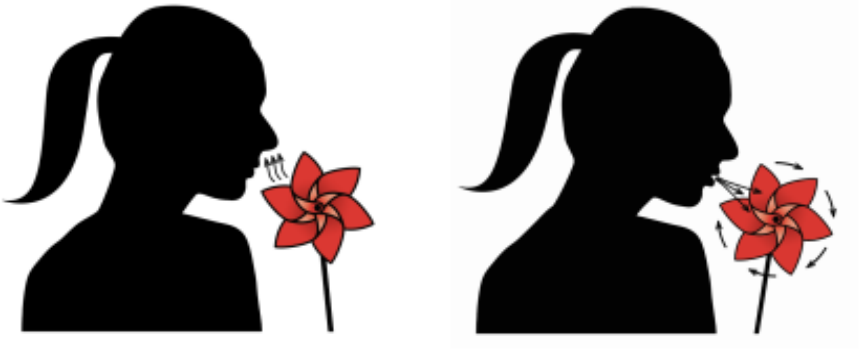
Station 2

1. Think a good thought.
2.

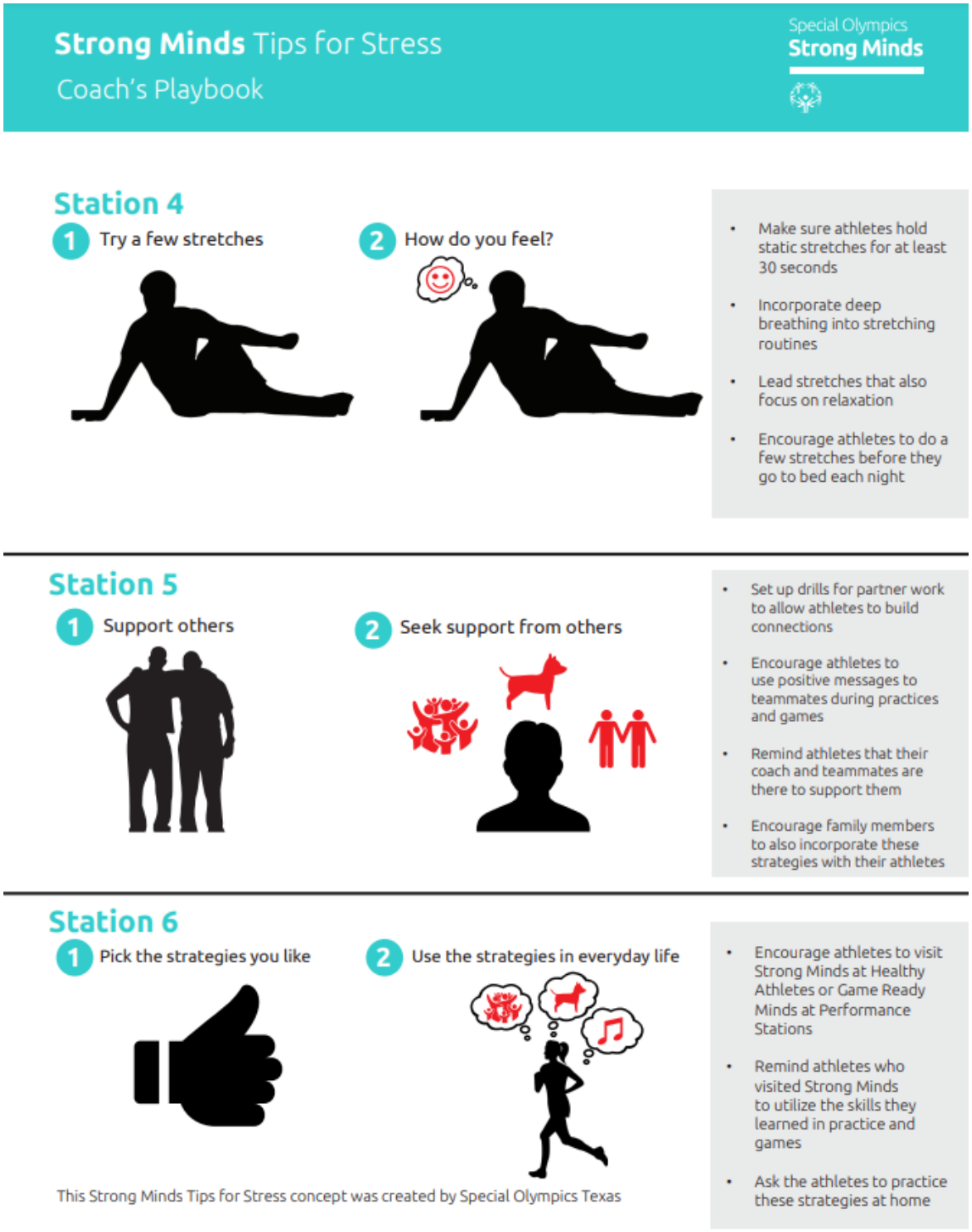
- During practice and games, state positive statements to athletes
- Start practices with a song with a positive message
- Ask an athlete to start each practice with a positive statement to the team
- After the game, ask the athletes what went well

Station 3

1. Smell the flower [pinwheel].
2. Blow the flower [pinwheel].



- Encourage deep breathing during stretching
- Teach the athletes to use deep breathing during a stressful situation in a game (ie. Before shooting a foul shot).
- Before a game, do a few rounds of deep breathing as a team



Communication strategies by the coach, fellow athletes, families and friends will help an athlete handle disappointment. Listen to what the athlete says and why they may be disappointed. Offer positive switches – positive comment – correction – positive comment to take the athlete's attention away from their disappointment. The athlete's effort, attitude and preparation should be emphasized, not the result of the competition.

Athletes in Training

Self-Talk & Imagery

Self-talk represents the things you say in your head about yourself.

Self-talk can sometimes be negative e.g., “that team is much better than ours”.

Positive self-talk involves repeating a helpful and positive word or phrase such as “I am fit and ready to play”.

Imagery or visualization is a mental process. It allows you to simulate (imagine) experiences in your mind. Often these experiences have the desired outcome e.g. scoring a penalty kick in football.

Imagery also involves using your senses (smell, sound, taste, touch, and feeling) to create an accurate experience in your mind.

Positive self-talk and imagery promotes confidence and success. Coaches should help educate their athletes on the value of positive self-talk and imagery.

One thing coaches can do is help athletes establish a pre-performance routine. At the start of a competition athletes can very briefly (10-15 seconds) do 4 helpful steps:

1. Close your eyes
2. Take a few deep calming breathes
3. Repeat a positive phrase “I am ready”
4. Picture yourself successfully making a perfect start, or finishing strongly.

This routine can be created and modified at training. Find what works best for the athletes. Take this pre-performance routine into a competition to help athletes best prepare mentally.

Athletes at Competition

Psychological Preparation

Just as you train your athletes physically and tactically for competition, you equally need to prepare them psychologically.

Physical Readiness + Psychological Readiness = Competition Readiness

Readiness of the athlete means being focused and prepared for competition.

- Psychological Readiness: Being a participant in the sport, showing confidence and an understanding strategy.
- Physical Readiness: Being physically conditioned and trained in the skills required for competition.

How to Psychologically Prepare for Competition:

1. Create and Set Competition Goals
2. Prepare for competition setting
    a. Tell your athletes what to expect
    b. Use videos of previous competitions
    c. Have experienced athletes speak with inexperienced athletes
    d. Have all equipment ready and available before time
3. Train as you plan to compete
    a. Make sure training is properly preparing your athletes for competition
    b. This will give athletes confidence going into competition performance
4. Practice Strong Minds Stations

Anxiety or stress is normal before a competition. Athletes who do not suffer from some sort of anxiety or stress before performance would be in the minority.

Competition anxiety occurs when an athlete perceives a competitive situation as potentially threatening, resulting in an aversive emotional response (Schaefer, Vella,

Allen, & Magee, 2016). Although some level of competition anxiety is considered to be normal, when competition anxiety exceeds a threshold level it can become detrimental to performance, motivation, and enjoyment (Schaefer, Vella, Allen, & Magee, 2016).

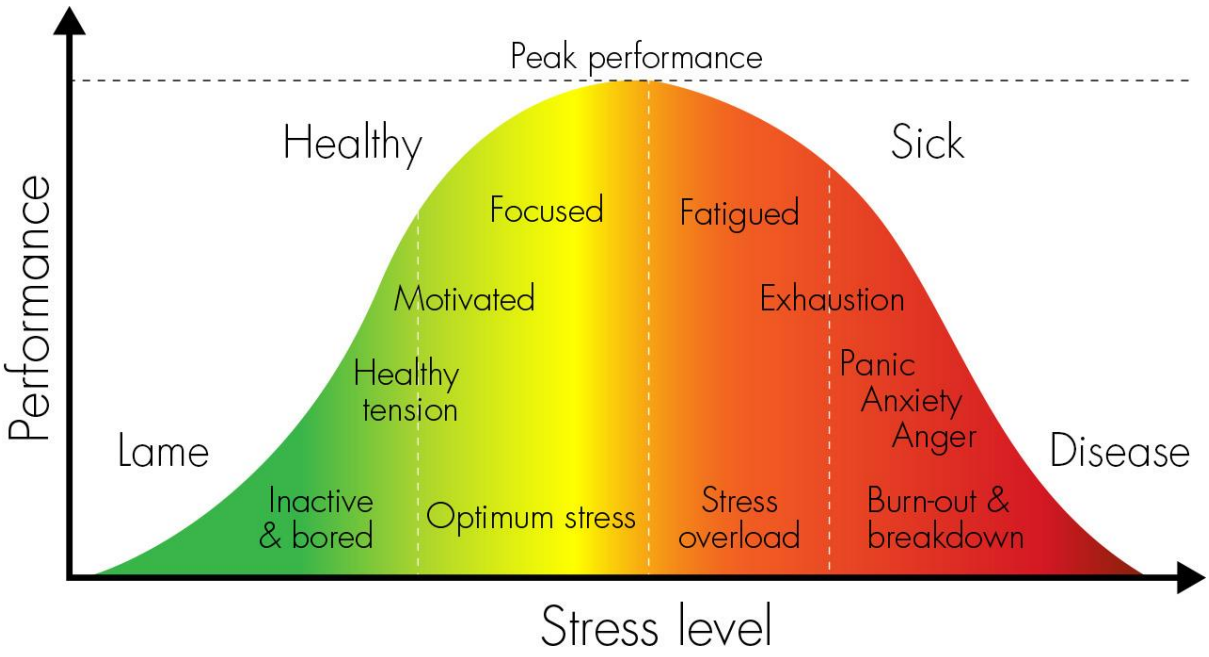


Figure xiii: The relationship between stress level and performance. This graph shows where peak performance can be achieved with a moderate stress level. It also shows the dangers of high stress and anxiety. Credit cescasdestinationhealthy.wordpress.com for image.

As a coach, it is your role to assist your athlete in not exceeding this anxiety threshold.

Simple measures such as:

1. Pre-Performance Routine
2. Strong Minds Stations
3. Alternative tasks to take their mind off of the competition/performance

These measures can be beneficial in the psychological preparation for athletes before competition.

There can be times when anxiety becomes too much for an athlete. They may not want to train or compete. The idea of competition or performing will cause them serious stress. If this is noticeable for an athlete within sport and outside of sport (social life, education, family life, etc.), it is recommended that the athlete talk to a professional. This can be a family doctor, a counsellor, or a psychologist.

Post-performance psychology

What is success – individual to the athlete

Many athletes will equate winning and losing with success and failure. This is often a self-defeating perspective as athletes only partly control the outcome of competition and often winning is unrealistic.

Coaches should focus on individual effort, self-improvement and learning as barometers of success.

Each athlete will have their own take on what success is to them.

If an athlete feels they are unsuccessful at a competition:

- ✓ Reassure them that winning isn't everything
- ✓ Refer back to the athlete's goals
- ✓ Identify where they have achieved or progressed towards their goals
- ✓ Praise their effort, not performance
- ✓ Remember the Special Olympics athlete oath;
  "Let me win. But if I cannot win, let me be brave in the attempt."

How to win & lose – code of conduct

All athletes should follow the Sportsmanship section of the Special Olympics Athlete's Code of Conduct.

- I will practice good sportsmanship.
- I will act in ways that bring respect to me, my coaches, my team and Special Olympics.
- I will not use bad language.
- I will not swear or insult other persons.
- I will not fight with other athletes, coaches, volunteers or staff.

As a coach, your role is to remind the athletes of their conduct and how to manage themselves win, lose, or draw. The important thing to do when educating athletes on their code of conduct is to explain 'why'.

Explain that athletes should act in the same manner they would want others to act if they were in the same position. If an athlete is successful, congratulate them. If an athlete is unsuccessful, encourage them for next time.

Your role as a coach is to be a role model to your athletes. You should always demonstrate good sportsmanship throughout competition, training, or events. Athlete's often 'feed' off of their coach's energy and enthusiasm – make sure yours is always positive and following good etiquette.

Figure xiv: Some roles a coach may take on in addition to being a role model.

Athletes in a heightened state of anxiety post-performance

Can be after achieving success (over-excitement) or not achieving desired outcome (disappointment).

If an athlete is excited and celebrating, do not discourage this! This is the feeling we all long for as athletes, coaches, and fans! Help the athlete to celebrate in a positive and safe manner.

It is important to not discount feelings of disappointment. It is appropriate to be disappointed when we lose a game or match. The challenge for the coach is to redirect that disappointment into a renewed commitment to training for the next competition or season. Becoming obsessed with losing is not a healthy or natural reaction for anyone.

Here are some strategies for athletes experiencing heightened states of anxiety:

1. Use Strong Minds stations
    a. Positive Messaging
    b. Deep Breathing
    c. Stretching
2. Offer support – through hi-fives, knuckle touches, other forms of comfort that the athlete is accepting of and comfortable with
3. Have a consistent post-performance routine (win, lose, or draw)

a. Stretching
b. Debrief
c. Praise for effort

All athletes are different and will have different ways of coping. Work with your athlete what their best post-performance routine should be and when to carry it out.

For some, shortly or immediately afterward is appropriate. If you leave it too long, it becomes forgotten.

For others, they may need more time to decompress – there is no one size fits all.

The athlete's effort, attitude and personal skills attainment should be rewarded and positively reinforced.

Educating Athletes

Each athlete is different. Simple guidelines and strategies on how to educate athletes will not be universally applicable to athletes. However, having a knowledge of the foundations as listed above will help you to best prepare your athletes for training and competitions.

Some simple tips for educating athletes about sports psychology are:

1. Introduce elements bit by bit
    a. Start with goal setting
    b. Strong Minds stations
    c. Introduce pre-performance routines
2. Use sporting examples to explain elements of psychology
    a. Confidence
    b. Disappointment
3. Work in groups
    a. Have open discussions about elements before, during, and after training and competition

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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.

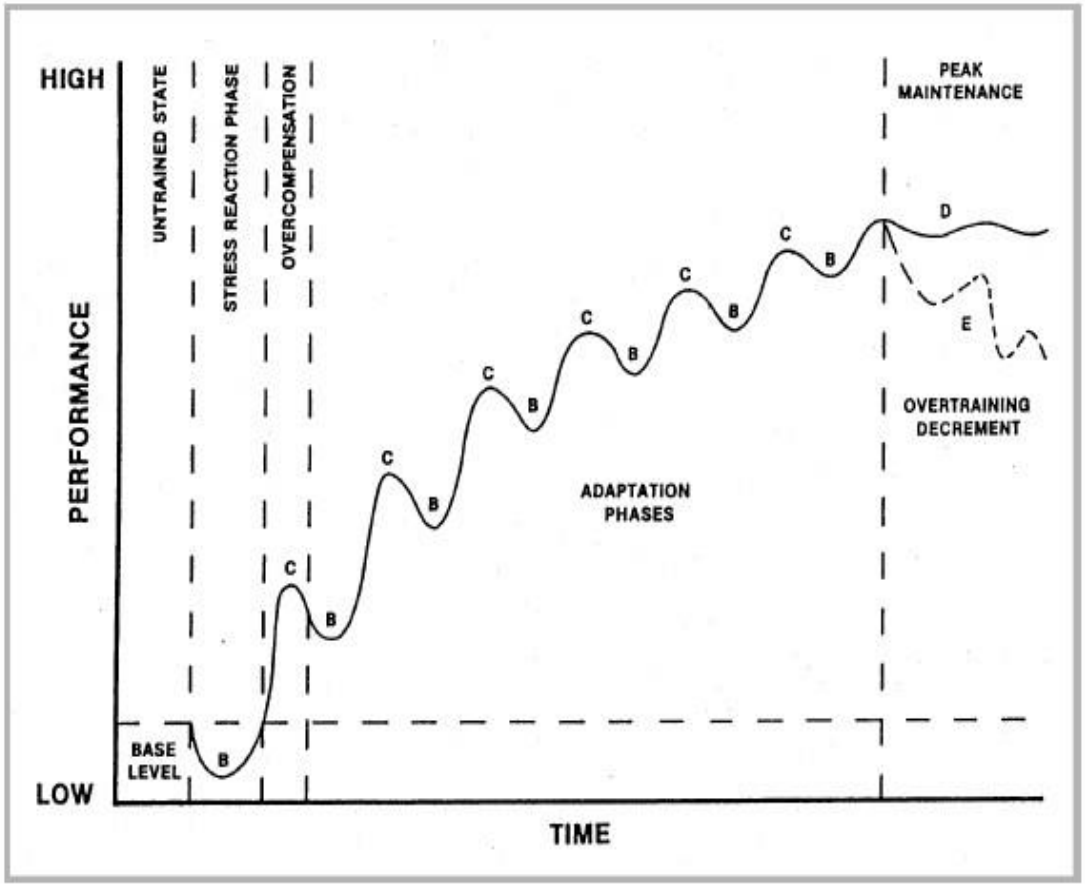
Stress Adaptation and Strength

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 bodys 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

***Work Sets and Reps Table**

Intensity	Reps per Set	Optimal Rep Range(total)
Below 70% Hypertrophy	5 to 8	18-to 30
70-79% Hypertrophy/Strength	3 to 6	12 to 24
80-89% Strength/Power	2-5	10 to 20
90%+ Power	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 Programing

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 1st through 3rd 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 athletes 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

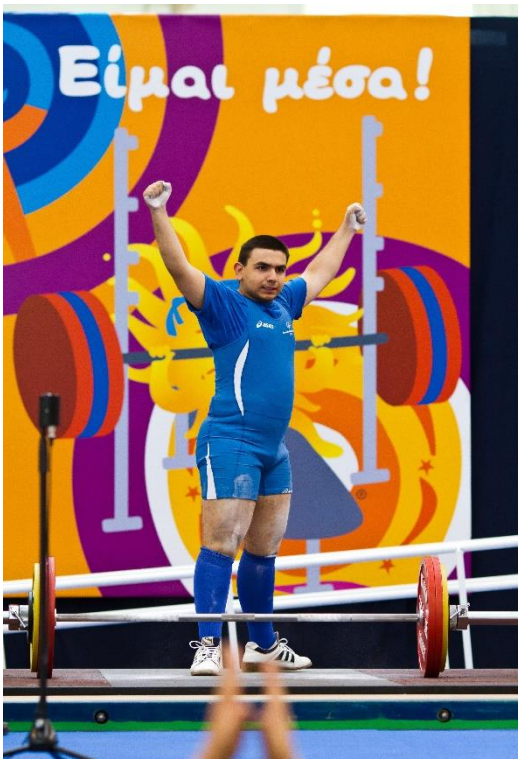
Note that after several weeks of training with steadily increasing weights on the deadlift, more recovery may be needed. Chins or rows can be an effective alternative to one of the deadlift days in this case. Make sure these are actual chins and not the 'kipping' chins that use the legs and momentum 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
Any Day of Week
Squat 5x5 (Ascending Sets)
Bench 4x5 (Ascending Sets)
Deadlift 1x5, 1x5 (Back off set)
Press 3x5
Chin-Ups or Rows 3 x 8-10



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 programing.

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	Bench1-3x5(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:

Week	Reps and Sets
Week1	5,5,5,5
Week 2	5,5,5,5
Week 3	5,5,5,4
Week 4	4,4,4,4
Week 6	4,4,4,3
Week 7	3,3,3,3
Week 8	3,3,3,2
Week 9	2,2,2,2
Week 10	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–

% 1 Rep Max	74	76	78	80	84	86	88	90	92	94	Comp
Sets/ Reps	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.

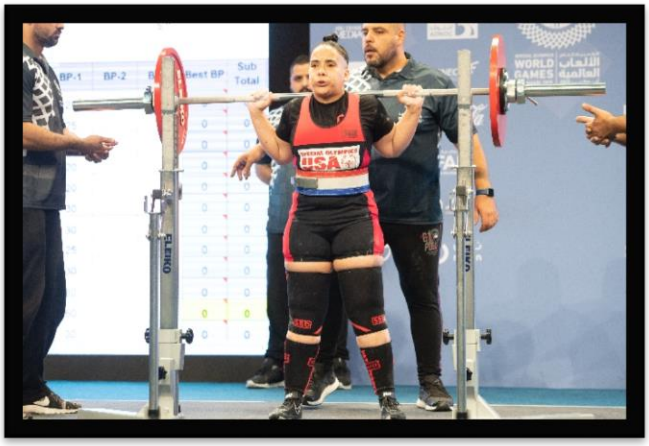
It is often beneficial to have the athlete develop a base level of muscle tone through the use of easier-to-learn exercises such as dumbbell squats, goblet squats or bench squats prior to beginning competition squats with a bar. When the athlete has developed this base, it is important to work on the 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.

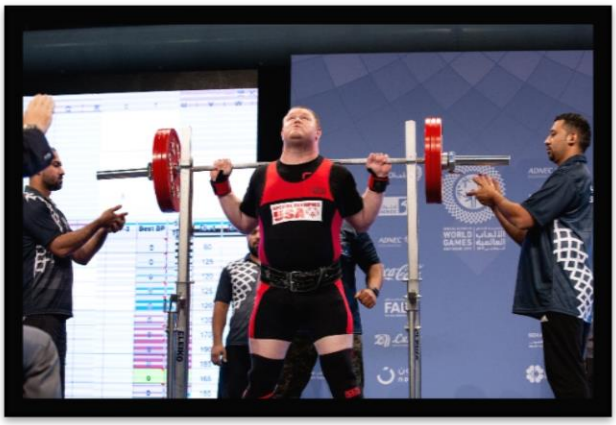
The powerlifting athlete should train for the squat the same way the athlete would compete in a squat competition. The signal “squat” at the beginning of the lift and “rack” at the completion of the lift allow the athlete to become completely familiar with the signals of the movement.

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 lifters knees have unlocked.

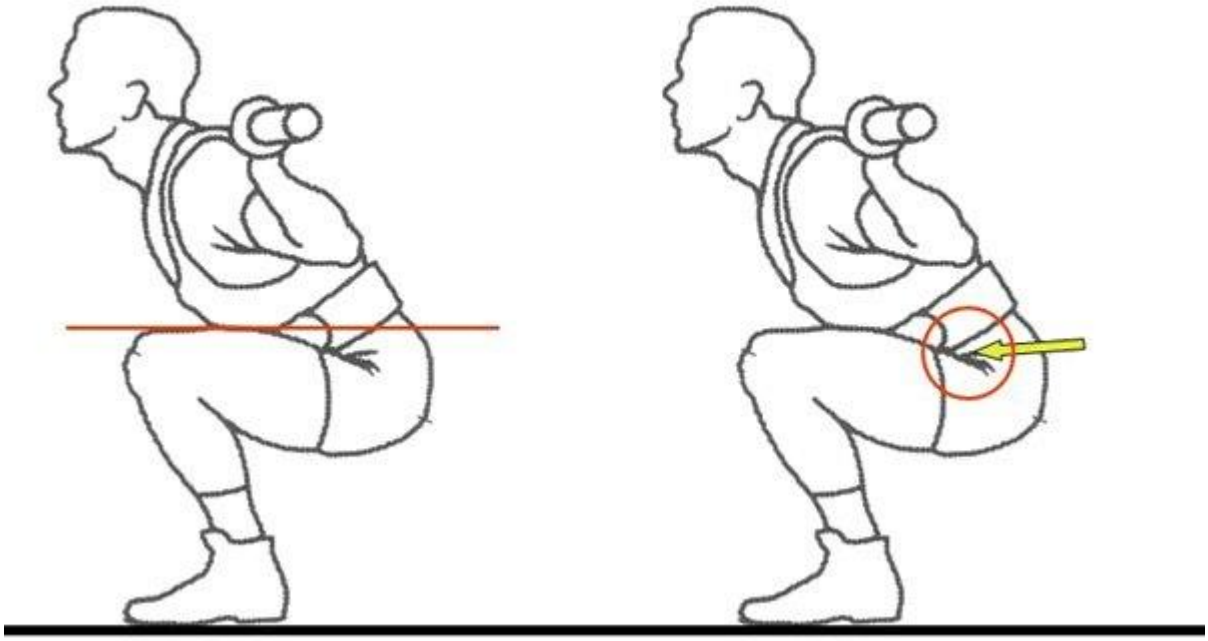


4. The lifter must recover at will to an upright position with the knees locked. Double bouncing at the bottom of the squat attempt or any downward movement is not permitted.
5. When the lifter is motionless (in the apparent final position) the Chief Referee will give the signal to rack the bar.

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

Faults and Fixes Chart – Squat

Error	Correction
Athlete does not listen or execute the commands	Consistently remind the athlete of the commands Provide verbal prompts like “Wait” or “Hold it” Verbal praise for success
Athlete does not achieve proper depth	Demonstrate/adjust form/technique Give your athlete verbal Prompt “lower” Consider Flexibility and/or Foot Position Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success
Athlete has foot movement after squat command has been given	Demonstrate/adjust form/technique Give your athlete verbal prompts Repetition of correct form/technique Verbal praise for success
Athlete does not ascend with weight	Demonstrate/adjust form/technique Repetition of correct form/technique Verbal prompt “up” Reduce weight Verbal praise for success
Athlete leans too far forward in ascent	Demonstrate/adjust form/technique Repetition of correct form/technique Have the athlete perform lift with no weights Verbal prompt “head up or shoulders back” Reduce weight Verbal praise for success

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 athletes 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 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."
- 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.

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"

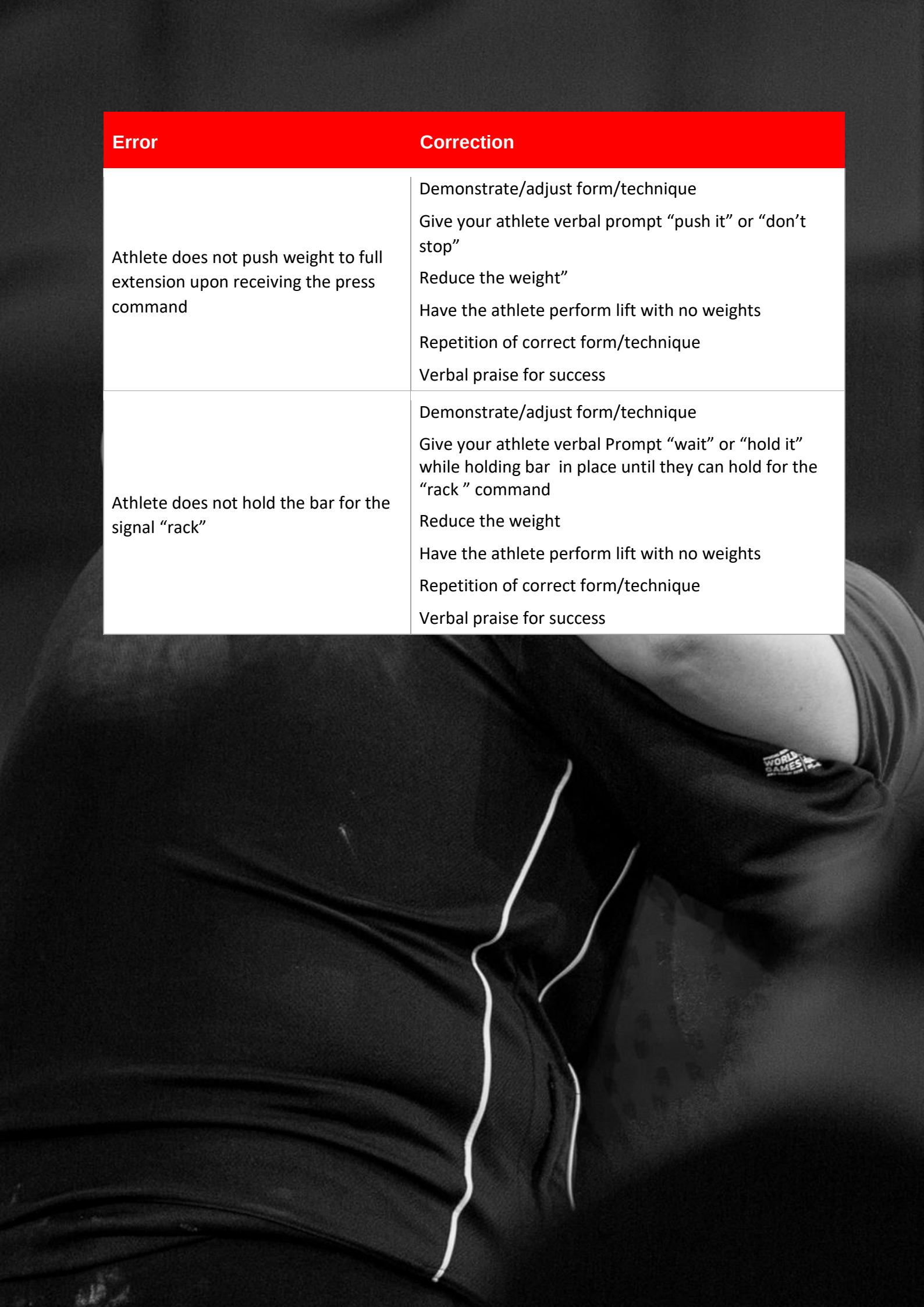
E. Bar Motionless at Chest

F. "Press"

G. "Rack"

Faults and Fixes Chart – Bench Press

Error	Correction
Athlete does not listen or execute the commands	Consistently remind the athlete of the commands Provide verbal prompts Verbal praise for success
Athlete does not achieve proper start position	Consider Foot and/or Body Position Demonstrate/adjust form/technique Give your athlete verbal Prompt like "wait" or "hold it" or "hold it high" while holding bar in place until they can hold it in the locked out position Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success
Athlete does not hold bar at chest for press command	Demonstrate/adjust form/technique Give your athlete verbal Prompt "wait" or "hold it" while holding bar in place until they can hold for the "press" command Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success
Athlete raises their head, feet or buttocks	Demonstrate/adjust form/technique Give your athlete verbal prompts "head down", "butt down", " feet flat" Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success



Error	Correction
Athlete does not push weight to full extension upon receiving the press command	Demonstrate/adjust form/technique Give your athlete verbal prompt “push it” or “don’t stop” Reduce the weight” Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success
Athlete does not hold the bar for the signal “rack”	Demonstrate/adjust form/technique Give your athlete verbal Prompt “wait” or “hold it” while holding bar in place until they can hold for the “rack ” command Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success

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.

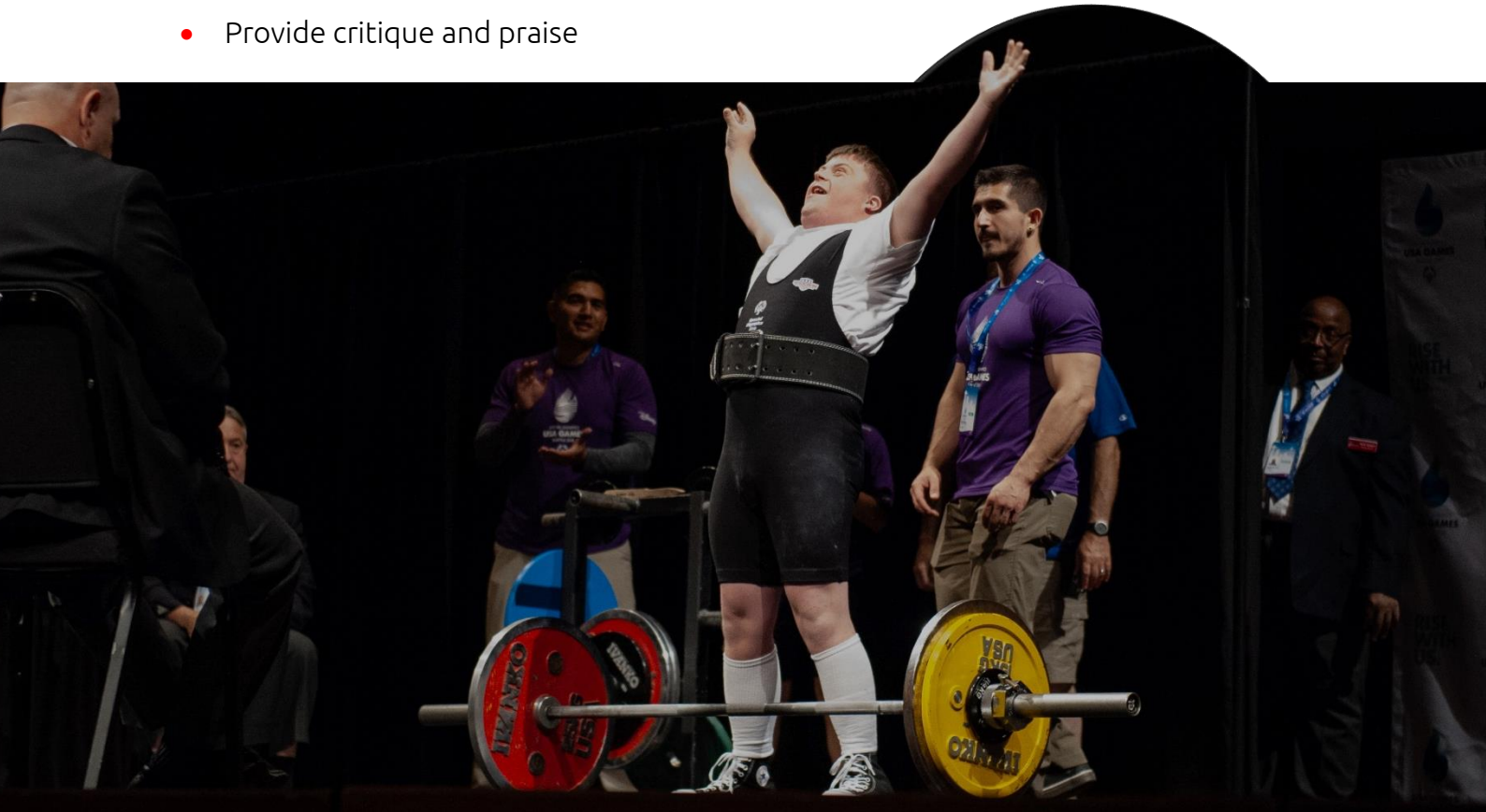
The following describes a competition format for the deadlift; athletes should be trained accordingly.

- 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 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

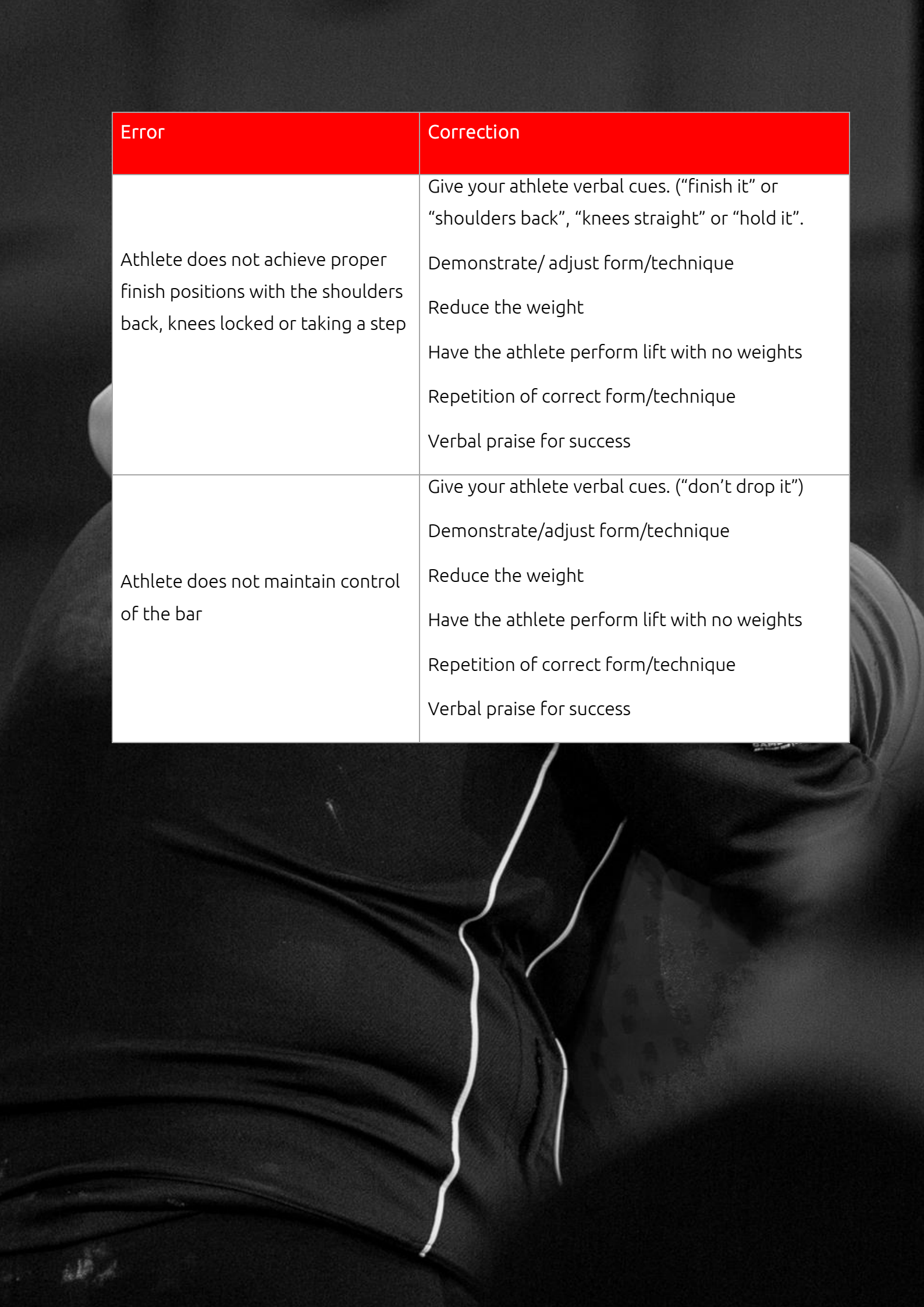
C. Athlete Pulls the Weight

D. Erect Position with Knees Locked and Shoulders Back

E. “Down”

Faults & Fixes Chart – Deadlift

Error	Correction
Athlete does not listen or execute the command	Consistently remind the athlete of the command Provide verbal prompts Verbal praise for success
Athlete lifts with too much forward lean and/or buttocks high and or bends arms while pulling the weight.	Give your athlete verbal cues. (“touch the bar with your legs, butt down, head up”, “arms straight” Demonstrate/adjust form/technique Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Use tactile cues such as touch forehead, shoulders back of belt to adjust athletes position Verbal praise for success
Athlete supports or “hitches” the weight on the legs	Give your athlete verbal cues (“keep pulling” or “don’t stop”) Demonstrate/adjust form/technique Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success



Error	Correction
Athlete does not achieve proper finish positions with the shoulders back, knees locked or taking a step	Give your athlete verbal cues. (“finish it” or “shoulders back”, “knees straight” or “hold it”. Demonstrate/ adjust form/technique Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success
Athlete does not maintain control of the bar	Give your athlete verbal cues. (“don’t drop it”) Demonstrate/adjust form/technique Reduce the weight Have the athlete perform lift with no weights Repetition of correct form/technique Verbal praise for success

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 coaches neck so as to keep their hands free.

Download Here

Competition Plan for:		
Bodyweight	*Lbs*	*kg*
SQUAT		
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	

BENCH PRESS		
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	

DEAD LIFT		
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	

COACH COMMENTS

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