EPTI Certificate in Instructing Kettlebells

EUROPEAN PERSONAL TRAINING INSTITUTE

LEARNER MANUAL

Certificate Structure

This Certificate is made up of two units:

Unit 1 – Planning a kettlebell training session
Unit 2 – Delivering a kettlebell training session

Overall aim of the qualification: to train learners to deliver safe and effective kettlebell training sessions.

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CONTENTS

UNIT 1 : PLANNING A KETTLEBELL SESSION

- Introduction to kettlebell training
- History of kettlebell training
- Benefits of kettlebell training
- Incorporating Kettlebell training into client programmes
- Programme design for kettlebell training

UNIT 2: INSTRUCTING A KETTLEBELL SESSION

- Instructing Kettlebell exercises to a client

Use this manual, alongside the online theory session to:

- Learn & understand the theory behind Kettlebell training
- Enable you to answer the assessment questions
- Prepare yourself for the practical training day
- Prepare yourself for the practical training assessment

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UNIT 1: PLANNING A KETTLEBELL SESSION

Aim: To provide you with an understanding of how to plan a safe and effective kettlebell training session.

Learning outcomes

By the end of this unit you will be able to:

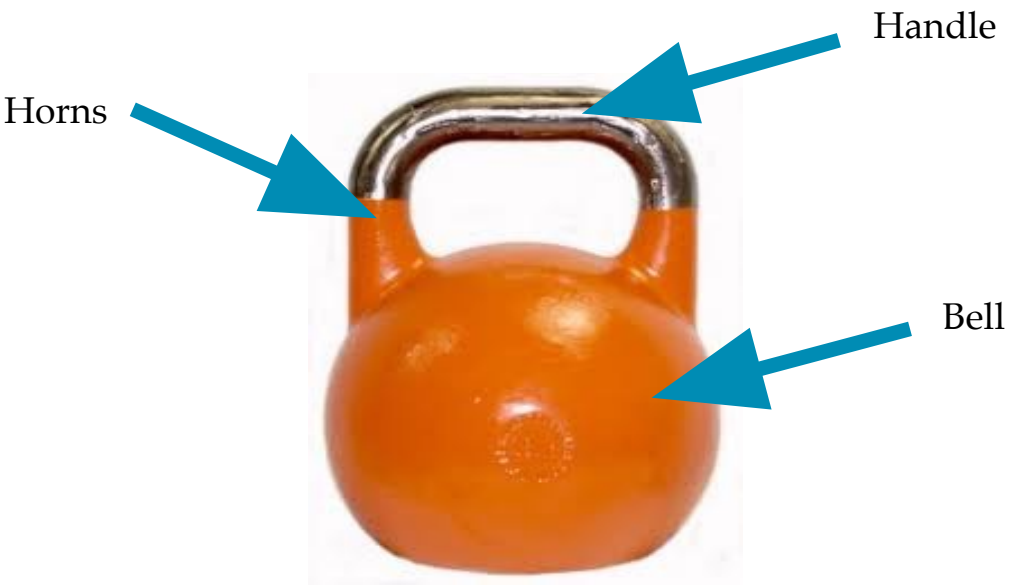
- Understand the history of kettlebell training
- Understand the benefits of kettlebell training
- Understand how to incorporate kettlebell exercises into a training session
- Be able to design a kettlebell programme

1. Overview & History of Kettlebell Training

1.1 What is a Kettlebell?

A kettlebell is a sphere shaped cast iron weight that resembles a cannon ball with a handle; essentially a Russian dumbbell, known as a Girya.

The kettlebell consists of three main parts: the handle, the horns and the bell:



1.2 History of the Kettlebell Training

It's difficult to pinpoint the exact origins of kettlebells. It has been documented during the 1700s in Russia, they were used primarily for weighing crops and other goods and used as a counterweight for measuring when trading and bartering. It is said that these farmers became stronger and found them useful for showing off their strength during festivals.

Participants of these village strength competitions were known as, 'Bogatirs' – a traditional Russian term meaning hero or valiant warrior. These weights would be used by men to display feats of strength.

In Russia, kettlebells are a matter of national pride and a symbol of strength. Kettlebell competitions have always been a part of the Russian culture since the early days of the kettlebell, where villagers would compete at fairs and festivals to prove who had the best skill, endurance and strength. In 1948, the 'first' official All-Union kettlebell competition took place, and "was attended by more than 200,000 people, from then on, kettlebells went from being used for general physical conditioning to a sport of its' own".

In Russia and Eastern Europe kettlebell lifting is an international sport with local, national and world championships.

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They are also the primary equipment used in the weight lifting sport of girevoy. They provide a highly adaptable training device, that can be used for a variety of different purposes.

Sigmund Klein set up a weightlifting gym in New York that became famous in the 1930s and 1940s for producing strongmen and kettlebells were a popular item of training equipment.

Soviet weightlifting legends such as Vlasov, Zhabotinskiy, and Alexeyev started their Olympic careers with kettlebells.

Unlike most national armed forces, which test their soldiers with push ups; the Russian armed forces test their soldiers using high volume kettlebell snatches using a 24 kg kettlebell.

From being used as a weight for market products in Russia, to a tool for athletic development and health, the kettlebell slowly developed into a sport of its own. By 1974 it had been officially declared the ethnic sport of Russia and in 1985 the First National Championship of the USSR was held in Lipetsk, Russia.

Kettlebells in North America were non-existent in the latter part of the 20th century. In 1998, Pavel Tsatouline, former Soviet Special Forces physical training instructor, and considered the “modern king of kettlebells”, wrote an article discussing kettlebells in a popular American magazine for strength athletes; the article was extremely well received. Tsatsouline is partly responsible for the resurgence of kettlebell training in the West.

Kettlebell timeline:

500 BC	Ancient Greek dumbbells called “halteres” are used in ancient sports
50 BC	Kettlebells or similar pieces of equipment may have been used by gladiators in ancient Rome
1000s	Kettlebells are used in strength competitions and for weighing and measuring goods
1704	Kettlebell appears in the Russian dictionary
1900s	Russian circus events and performers such as Louis Cyr use weighted devices
1913	Russian magazine “Hercules” reports: “Not a single sport develops our muscular strength and bodies as well as kettle bell athletics”
1930s	Sigmund Klein sets up a famous weightlifting gym in New York - kettle bells become a popular item of training equipment
1948	Kettlebell lifting becomes the USSR’s national sport consisting of three events: the jerk; the clean; and the snatch
1950s	Soviet weightlifting legends Vlasov, Zhanotinsky & Alexeyev start their careers with old-fashioned kettle bells
1960	Vlasov wins the gold medal at the 1960 Rome Olympics and is proclaimed “strongest man on the planet”
1962	The first kettle bell competition rules are developed
1970s	Kettlebells are used as part of the Unites All State Sport Association of the USSR
1985	The first Kettlebell National Championship of the USSR is held in Lipetsk. The Committee of Kettlebell Sport is organised with rules, regulations and weight categories
2000s	Nationally-ranked kettlebell competitor Pavel Tsatouline popularises kettlebell training in the West

2. Benefits of Kettlebell Training:

2.1 Non-Physiological Benefits of Kettlebell Training

The kettlebell is a great piece of kit to add to the personal trainers toolkit. It's fun, versatile, compact, easy to transport, and provides the client with unique and effective exercises that will keep them interested, provide variation from traditional resistance training, and keep them progressing towards their goals. They can also provide a low cost alternative to other methods of resistance training. The lifting techniques can be learnt easily and there are a lot of exercise alternatives, progressions & regressions, which can be used for kettlebell training sessions, group sessions, and in conjunction with other training methods.

Kettlebell exercises are normally compound exercises, and often total body, involving lifts, pushes and pulls. You can target many different goals such as fat loss, CV fitness, strength, hypertrophy and endurance.

Unlike traditional dumbbells, the kettlebell's centre of mass is extended beyond the hand because the weight falls outside of the handle. This facilitates ballistic and swinging movements. The unique shape of the kettlebell provides the "unstable force" for handling.

2.2 Physiological Benefits of Kettlebell Training

In addition to functional capabilities, kettlebell training has many physiological benefits.

The Posterior Chain

As well as the many specific benefits outlined below, many kettlebell exercises target the posterior chain, or posterior kinetic chain. The main muscles that make up the posterior chain are:

- Erector Spinae
- Gluteus Maximus
- Hamstrings

The posterior chain is fundamental in many daily activities, and sporting activities, as they produce the force required for forward motion, speed, and acceleration. The posterior chain not only predominantly provides the force required for walking, it also the driving force behind performance in sprinting, jumping, and lifting activities.

Strength and Power

Strength can be defined as the extent to which muscles can exert force by contracting against resistance.

Power can be defined as the ability to exert maximum muscular exertion instantly in an explosive burst of movements. The two components of power are strength and speed.

The very nature of the main kettlebell lifts ensure that strength and power can be trained effectively. When the appropriate training variables are selected (i.e. load & reps), then kettlebell exercises can provide the stimulus required for improvements in muscular strength. However, exercises such as the swing, clean, high pull and snatch are very dynamic and therefore lend themselves to be more 'power' focused exercises, requiring strength at speed.

The main lifts utilise the 'hip snap' movement, which targets the posterior chain muscles (erector spinae, gluteus maximus, hamstrings). These muscles are known collectively as the 'power house' of the human body, and become predominantly the target muscles for improvements in strength and power.

In addition to the posterior chain, kettlebell exercises are also very effective at building forearm and grip strength, particularly when performing 'rowing' or 'pulling' exercises, and dynamic exercises such as the one arm swing and high pull.

Hypertrophy

Hypertrophy is a benefit of resistance training if we are working within the rep ranges of 6-12. The outcome of this type of training is an increase in the size of skeletal muscle resulting from the increased size of individual muscle fibres.

Kettlebell exercises are generally compound movements involving multiple muscle groups, that have the ability to build muscle when training within that rep range, assuming the load is sufficient to provide overload.

Hypertrophy training is also great if you are targeting fat loss, due to an increased metabolism at rest.

Muscular Endurance

When the correct training parameters are selected, kettlebell training can also benefit muscular endurance through higher (>12) rep ranges. These parameters would need to be programmed if the client has goals associated with muscular endurance, and/or cardiovascular fitness. We would also start a beginner client off with a lighter weight, and higher reps, so they can learn the movement patterns through repetition.

Core Function

As kettlebell exercises generally involve large movement patterns performed at speed, the core has to support and stabilise the trunk throughout these exercises. This attribute makes many kettlebell exercises effective for the core muscles, to improve their performance in a functional manner.

In addition, most kettlebell exercises are performed in a standing stance so your core has to work relatively hard when compared to a lot of machine or freeweight exercises, where you're either seated or laying down - meaning that your core muscles aren't activated to the same degree.

Active Flexibility

Many kettlebell lifts are completed through larger ranges of motion than those provided by other training methods and this will encourage more movement-based flexibility.

Body Composition

Kettlebell training will increase metabolic rate and calorie expenditure during training sessions, contributing the the energy deficit required for weight management goals. A long term increase in basal metabolic rate, combined with appropriate nutrition and additional physical activities will promote a more desirable body composition for clients.

Cardiovascular Improvements

Regular physical activity, particularly those that place demand on the cardiovascular system, are shown to improve overall health, lower high blood pressure, and reduce the risk of coronary heart disease. Kettlebell exercises can be performed in such a way, that the heart and lungs are challenged to deliver oxygen to working muscles, thus improving cardiovascular fitness. To specifically target the cardiovascular fitness of a client, kettlebell exercises can be performed with high repetitions and/or in a circuit format to maximise the benefits. Workouts can be specifically designed to target any of the energy systems (creatine phosphate, lactate and aerobic).

2.3 Kettlebell training as a functional training tool

Functional exercises improve a person's ability to cope with the demands of their work or sport environment. The degree of functionality of an exercise, depends on what your client does in every day life. However, hip extension is an important joint movement of everyday living, with the Gluteus Maximus and Hamstrings producing this movement whilst we walk, run, and use stairs. Therefore we want to utilise the movement of hip extension, through compound exercises, as it is very functional to our everyday lives.

Many kettlebell exercises, such as the kettlebell swing (which forms the foundation of most kettlebell exercises), involve hip extension, making them functional to common everyday activities.

Kettlebells are particularly good at strengthening and dynamically loading the hip extensor muscles. The dynamic control needed to accelerate and decelerate a kettlebell swung at speed relates to many sports and helps develop shoulder and hip strength, stability and flexibility.

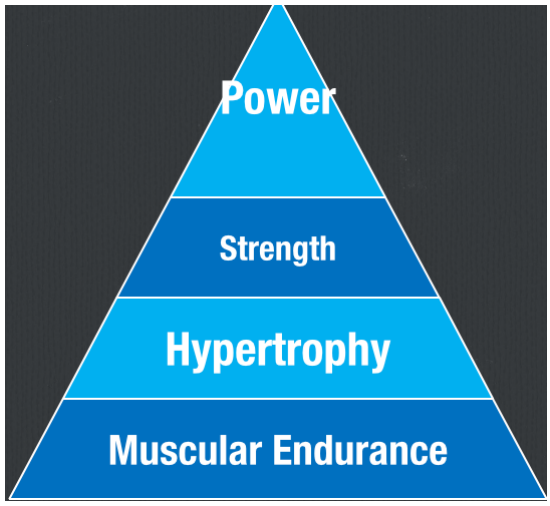
Kettlebell training can also help improve the coordination, core and shoulder stability needed in everyday tasks and sporting movements.

3. Incorporating Kettlebell Exercises into a Training Programme

Safe and effective programme design needs to take into consideration many factors but most importantly fitness professionals need to look at the person they are writing the programme for. We need to consider the client's lifestyle, current fitness level and training age, exercise likes & dislikes, time availability and training objectives. We also need to consider the environment and the equipment available.

We also need a series of logically progressive training phases which we can use to progress or regress the clients as needed.

The *'resistance training progression pyramid'* illustrates a phased model of training, starting with endurance and building up to power that can be targeted by kettlebells.



When lifting kettlebells there are two different types of exercises in focus. There are low repetition lifts to make you increase your maximal strength and there are dynamic exercises, mostly performed at high repetitions that will build strength as well, but will predominately challenge muscular endurance and cardiovascular fitness.

With this in mind,workouts can be planned to challenge each of the body's energy systems, (aerobic, lactate and creatine phosphate).

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Kettlebell training can therefore by used on its own during a workout or integrated together with other forms of resistance or anaerobic cardiovascular training to complement them.

Using the swing may be the first step for kettlebell beginners. Existing exercises can also be incorporated into a kettlebell routine (such as squats, rows, shoulder presses).

3.1 Health & Safety Considerations of Kettlebell Training

As with all forms of participation in exercise, initial screening is important prior to participating in kettlebell training. A completed PAR-Q will highlight any contraindications

to exercise and/or indications for GP referral. Further sessions should, as always, commence with a brief verbal screening.

There are also further health and safety points specific to kettlebell training to consider before using them. Exercises should be performed on a stable, flat surface with plenty of space. This is important because there is swinging involved and the user has to feel confident that they're not going to hit anybody else in the room.

Make sure that the correct weight is selected for a perfect technique and note that progressions to more advanced exercises should only be made when you're sufficiently competent. If the participant is new to an exercise, get them to use a lower weight in order to perfect their technique and then you can then progress them on to a weight that they should be using, to achieve overload when they can complete it without compromising technique.

The recommended starting kettlebell weight for men should be around 16 kg, progressing to 20-24 kg or more, depending on the exercise and 8kg for the TGU.

The recommended starting weight for women should be around 8 kg, progressing to 10-12 kg or more, depending on the exercise and 4kg for the TGU.

The size of the kettlebell will also be influenced by the participant's training goal. Heavier weights should be selected for strength or power outcomes and lighter, smaller kettlebells for cardiovascular fitness and muscular endurance.

3.2 Contraindicated Conditions with regards to Kettlebell training

There are also some contra-indications that you should be aware of for kettlebell training:

- Hypertension
- Osteoarthritis/Rheumatoid Arthritis
- Pregnancy
- Severe Osteoporosis
- Obesity
- Lower Back Pain

3.3 Potential risks associated with Kettlebell training

Cases of dropped kettlebells are rare, however if grip is lost or you're struggling to perform a kettlebell exercise (and it's safe to do so), drop the kettlebell and move out of the way as quickly as possible.

Training barefoot aids technique on exercises such as the swing, gives the performer greater proprioceptive feedback and enables efficient 'rooting'. Rooting allows the user's heel to be firmly against the floor allowing for a clean transfer of power during the lift. Although this is a benefit to kettlebell training, due to the potential for foot injury (from an

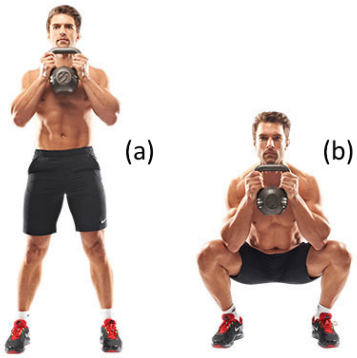
unsuitable floor or a dropped weight), many gyms will not allow you to train barefoot, although you have the option of wearing minimalist shoes that do not have a spongy sole.

3.4. Identify appropriate Kettlebell exercises and their purpose

Kettlebell Exercises

The exercises within this section are intended to provide a foundation on which to build your library of exercises. Each exercise within the section details the primary muscles used and the teaching points that must be followed to achieve sound technique. Each exercise table includes common problems and solutions and provides appropriate regressions suitable for those who require the exercise to be made easier or simpler, and progressions for those who need the exercise to be made more challenging.

KB Goblet Squat		
Overview	Primary Muscles	Teaching Points
The Kettlebell Goblet Squat has all the benefits of a traditional front squat, and is a good introductory exercise. Holding a Kettlebell (compared to a barbell) may be more comfortable for those with limited shoulder mobility, and keeps the weight closer to the body, potentially making it a preferred option.	Quadriceps Hamstrings Gluteals Calves Core	1. Hold the KB in a double handed 'racked' position with feet shoulder width, toes slightly turned out 2. Brace the core muscles 3. Initiate the movement by bending the hips & knees 4. Continue as low as possible without compromising spinal alignment and ensuring heels stay grounded 5. Keep the chest lifted, shoulders relaxed, knees tracking with toes 6. Push through the heels to return to full extension, fully engaging the Glutes at the top
Alternatives	Common Problems & Solutions	
1. Single arm racked position 2. Double KB front squat 3. KB Lunges 4. KB Pistol Squats	Problem: Excessive forward flexion & rounding of the spine Solution: Encourage client to lift the chest, keep the weight in the heels, and allow the knees to come forward, whilst keeping the heels grounded Problem: KB falling away from the body, putting stress on the biceps Solution: Keep the KB close to the sternum and keep forearms vertical throughout the movement by moving elbows forward on eccentric phase	



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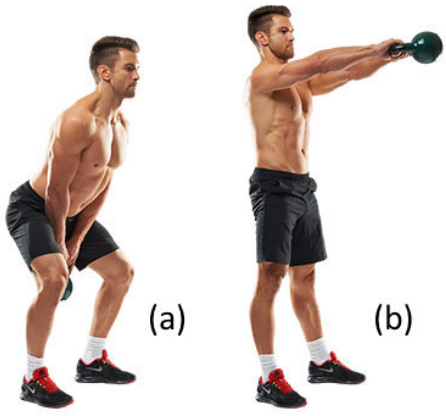
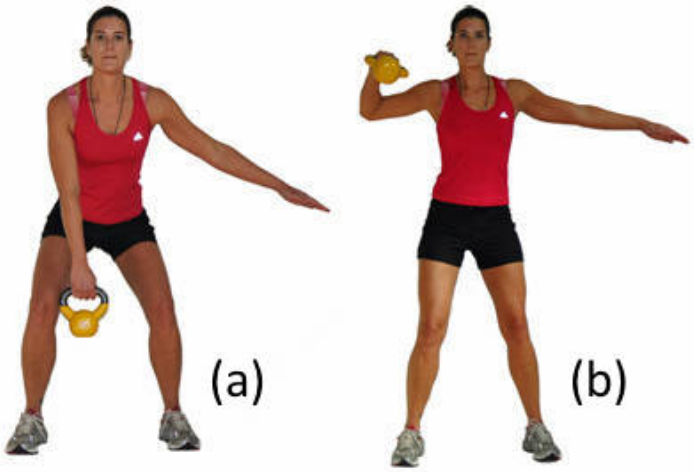
KB Swing		
Overview	Primary Muscles	Teaching Points
The Kettlebell Swing is the fundamental Kettlebell exercise. It utilises the posterior chain musculature within a dynamic exercise that requires both acceleration and deceleration phases. The Kettlebell swing is a pre-requisite to more advanced exercises such as the Clean, High Pull, and Snatch. Clients should be able to perform a full set competently before progressing to more advanced exercises.	Gluteals Hamstrings Erector Spinae Core	1. Start position - grasp the handle of the Kettlebell with both hands with feet outside shoulder width, toes slightly turned out 2. Brace the core muscles 3. From a standing position, start the swing with a slight hip thrust and allow the KB to swing between the thighs whilst pushing the hips back, with a slight bend of the knees 4. Perform a 'hip snap' by dynamically thrusting the hips in a forward direction, allowing the KB to 'swing' through to shoulder height 5. Engage the Gluteals in full extension of the hips, with the base of the KB facing away from the body 6. Exhale on the hip snap keeping a neutral spine throughout 7. After a moment of weightlessness at shoulder height, let gravity allow the KB to lowering 8. Tip from the hip, pushing the hips backwards as the KB swings between the thighs, with the handles above knee height 9. At the bottom of the movement, aim for the torso to be approximately 30° angle up from the ground with an open chest
Alternatives	Common Problems & Solutions	
1. Single Arm KB Swing 2. Alternating KB Swing 3. Double KB Swing 4. Travelling KB Swing - take a step any direction when the KB is weightless at shoulder height 5. American KB Swing (overhead)	Problem: Too much knee bend making it squat-like with up/down momentum, rather than back/forward Solution: Encourage client to only allow a slight knee bend focusing on pushing the hips backwards and thrusting them forwards during the hip snap. Aim to feel a lengthening of the hamstrings at the bottom of the movement. Problem: KB handle swinging through the legs below knee height Solution: This is caused by tipping too early on the downward phase. Let gravity initiate the KB swinging downward and then tip late to keep the KB handle above knee height	



KB One Arm High Pull		
Overview	Primary Muscles	Teaching Points
The KB High Pull is an excellent exercise in it's own right, having some of the benefits of the swing with the additional movement at the shoulder. It utilises the Single Arm KB Swing, therefore this should be mastered before attempting the High Pull. Although more complex than the Swing, the High Pull is less complex than the KB Snatch and should therefore sit between the two exercises when it comes to the order in which clients learn them. The exercise can be considered a total body exercise as it effectively works the major muscles of the lower body, as well as the muscles around the shoulder and elbow joints.	Gluteals Hamstrings Erector Spinae Core Deltoids Biceps/Triceps	1. The teaching points from the KB Swing apply. However, the KB handle would be held in one hand and the following, additional teaching points, also apply… 2. During the hip snap, as the KB swings out from between the thighs, the 'pull' will be initiated by pulling the elbow back past the armpit 3. At the top of the movement, the gluteals should be fully engaged and the client should have a sensation of elbowing someone behind them! 4. The forearm should finish parallel to the ground, approximately chest height, and the base of the KB should be pointing in front of the client with neutral wrist alignment 5. Shoulders should be relaxed, core should be engaged 6. Immediately, the reverse action needs to occur by 'punching' the KB in a forward direction, returning between the thighs through the downward phase of the Swing
Alternatives	Common Problems & Solutions	
1. Alternating Single Arm High Pull (use alternating swing between reps to change hands) 2. Double KB High Pull	Problem: The KB flipping over the back of the hand Solution: Keep a tight grip of the handle and keep wrist alignment neutral Problem: The elbow dropping below the height of the wrist at the top of the movement Solution: This is usually caused due to loss of momentum. Initiate the upper body 'pull' early as the KB comes out from between the thighs. The the KB is taken to the top of the swing, it will lose it's weightlessness by the time the KB has been pulled back towards the armpit,meaning it will either drop, or more commonly, the elbow is lowered to avoid the KB dropping	



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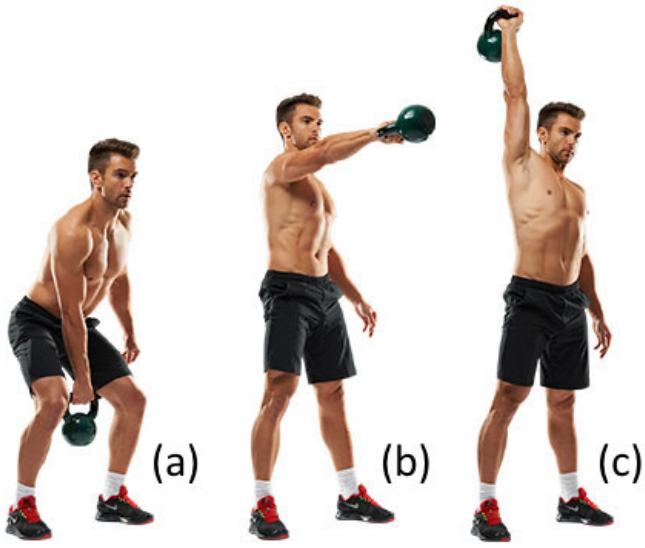
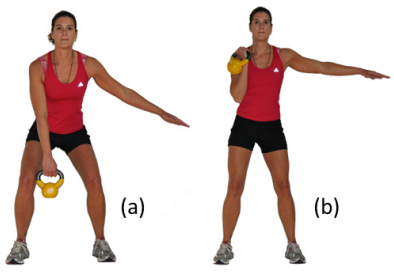
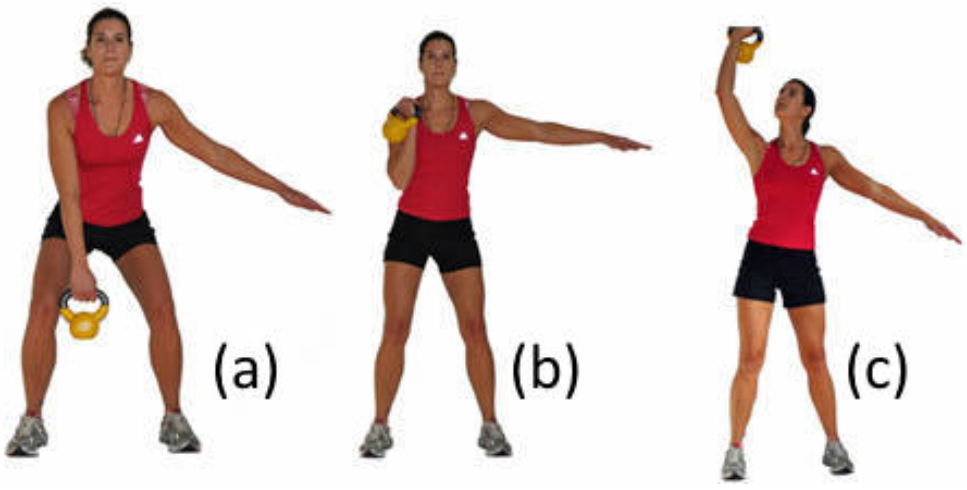
KB One Arm Snatch		
Overview	Primary Muscles	Teaching Points
The KB Snatch is the ultimate, total body Kettlebell exercise. It requires power from the posterior chain, whole body coordination, and shoulder stability. It is one of the most technically demanding exercises and should only be introduced to clients once the single arm swing and high pull have been mastered.	Gluteals Hamstrings Erector Spinae Core Deltoids Rotator Cuff	1. The KB Snatch is initiated in the same way as a single arm swing 2. Generate more power from the hip snap to enable the KB to move in an arc, past shoulder height, directly overhead 3. As the working arm reaches around chest height, slightly bend the elbow and open the palm of the hand 4. Once the KB has moved above head height, straighten the arm to rest the bell on the outer forearm. The arm should finish vertical, next to the ear 5. To reverse the Snatch, dynamically flip the KB over the top of the hand, grip the handle, moving into the downward phase of a Swing 6. All movements described above need to be done at speed and coordinated & timed to rest the bell on the back of the forearm
Alternatives	Common Problems & Solutions	
1. Alternating Single Arm Snatch (use alternating swing between reps to change hands) 2. Double KB Snatch	Problem: The KB slapping against the wrist/forearm at the top Solution: Work on the technique and coordination of bending the elbow slightly and opening the palm, and finishing with a strong 'punch' overhead to straighten the arm. This will rotate the bell to sit on the forearm, as opposed to it pivoting at the handle with the mass of the bell flipping over and hitting the forearm. Problem: Relying on upper body strength to move the KB overhead. Solution: The upper body would coordinate the manipulation of the Kettlebell into the finishing position, and show stability at the shoulder joint in that final position. However, the power to get the KB overhead should come from the posterior chain. Put in a more powerful hip snap to solve the problem.	



KB One Arm Clean		
Overview	Primary Muscles	Teaching Points
The KB Clean is a transitional exercise with the aim of getting the KB from the bottom of a swing into a 'racked' position. This allows the KB to be in the correct position for exercises that start from the 'rack' position, such as the shoulder press and squats from a 'racked' position. When the Kettlebell is in the racked position, the elbow will be tucked into the side of the ribcage, with the wrist end of the forearm pointing towards the top of the sternum. The palm is open and facing towards the midline of the body, with the KB resting on the back of the forearm.	Gluteals Hamstrings Erector Spinae Core Deltoids Lats Biceps	1. The KB Clean is initiated in the same way as a single arm swing, or Double Arm Swing if performing a Double Arm Clean 2. As the KB swings out from between the thighs, draw the elbow backwards, alongside the body, rotating the forearm so the palm faces towards the midline of the body 3. The above technique will give the KB some upward momentum. Once the elbow has been pulled back, tuck it under to finish with a vertical forearm (wrist above elbow) and allow the KB to 'wrap around' the forearm, finishing on the outer side 4. Finish in the 'racked position' described in the overview 5. You are now in the correct position for exercises such as the Shoulder Press 6. To reverse the movement, allow the KB to move forward and down from the racked position and it will drop down the midline into the lowering phase of the swing
Alternatives	Common Problems & Solutions	
1. KB Clean & Press 2. Double KB Clean 3. Double KB Clean & Press	Problem: The KB slapping against the wrist/forearm at the top Solution: Two possible solutions required. 1) The KB is being swung too far from the body, causing the client to have to pull it back a long way towards the rack. This horizontal movement of the bell will cause it to land in the rack position with force. Coach the client to pull the elbow back earlier to avoid this. 2) The hip snap is generating too much power causing the KB to move too forcefully into position. Either increase the weight of the KB, or decrease the hip snap to compensate. Problem: The finishing position has the palm facing forwards and away from the sternum Solution: The racked position is the finishing position. Ensure clients know what that position feels like by placing a light KB into this position. Also, ensure they are rotating the forearm so the palm faces towards the midline of the body as the elbow pulls back, allowing the KB to wrap around the back of the forearm. If the client has their palm facing down as the elbow pulls back, the KB will flip over the top of the hand and finish well outside the racked position, compromising the shoulder joint & muscles	



KB One Arm Shoulder Press		
Overview	Primary Muscles	Teaching Points
The KB Shoulder Press or One Arm Press, is a very effective shoulder exercise. When performed correctly, it can not only increase strength/hypertrophy/endurance, but also increase mobility, ROM, and stability of the shoulder joint. It is initiated from the rack position, therefore the KB Clean is a pre-requisite to performing the Shoulder Press.	Deltoids Triceps Core	1. Prepare for the exercise by performing one rep of the KB Clean to get the KB into the racked position 2. Engage core with feet hip-shoulder width apart 3. Press the Kettlebell overhead keeping the forearm vertical and wrist alignment neutral, exhaling on the way up 4. Finish with a straight arm, palm facing forward, upper arm in line with the ears 5. Lower the KB back down, returning to the racked position at the bottom of every repetition
Alternatives	Common Problems & Solutions	
1. Double KB Shoulder Press 2. Alternating KB Shoulder Press 3. See-Saw Shoulder Press 4. KB Clean & Press 5. Double KB Clean & Press 6. Front Squat (racked) to Shoulder Press	Problem: Hyperextending the lower back, particularly towards the top of the movement Solution: Client needs to engage the core effectively and ensure the wrist has stayed in neutral alignment. If the problem persists, lighten the load. Problem: Bringing the KB to the side of the body on the way down, like a traditional Dumbbell Shoulder Press, rather than returning to the racked position Solution: Due to the mass of the KB sitting outside the handle, the weight will force the shoulder into external rotation at the bottom of the movement, if done incorrectly. This is a very compromising position with external rotation occurring whilst the shoulder joint is in a horizontally extended position. This has a high potential for shoulder dislocation. Coach the client into returning to the racked position at the bottom of very repetition.	



KB Turkish Get Up (TGU)		
Overview	Primary Muscles	Teaching Points
The TGU is a total body conditioning/strengthening exercise, with particular focus on core strength, hip mobility, and shoulder stability. The aim to the move from a supine lying position to a standing position, whilst keeping the arm vertical throughout with the KB directly over the line of the shoulder.	Total Body/Core	1. Start by lying in a 'foetal position' on the right side, right hand under the handle, left hand over the handle 2. Roll over onto the back, pressing the KB over right shoulder, with the arm vertical, and bending the right knee with foot flat on the floor. Left arm should rest on the floor out to the side, and left leg is straight 3. Throughout the rest of the exercise, the arm should stay vertical and you should look at the KB the whole time 4. Contract the abdominals, drive through the right foot, and punch the KB upwards, finishing on the left elbow 5. Repeat, replacing the left elbow with the left hand under the shoulder 6. Lift the hips off the floor 7. Move the left leg backwards between the right foot and left hand and move the torso upright, finishing as if at the bottom of a lunge, with the arm still vertical above the right shoulder 8. Drive through the right heel and stand, feet hip width 9. Reverse the actions until you are lying on your back, and repeat
Alternatives	Common Problems & Solutions	
1. Half TGU	Problem: Client getting confused about the sequence of movements Solution: Teach the client by layering the exercise in sections. Teach them the first two steps and return to the start. Repeat until mastered. Then add on another 1-2 steps, returning to the start and repeating until mastered. Repeat until the whole exercise can be performed competently Problem: The client struggles to stabilise the KB overhead Solution: Start by learning the exercise without the KB. When introducing the KB, ensure the arm stays vertical throughout. This is achieved by watching the KB throughout the exercise.	

4. Designing a Kettlebell Programme

Every type of kettlebell training session must consist of an appropriate:

- Warm up
- Conditioning phase
- Cool down.

4.1 Warm Up and Cool Down Activities

Warm Up

An appropriate warm up period is an important part of any exercise programme. The warm up is completed prior to the main exercise component and used to prepare the participant for the workout to follow. It should consist of a pulse raiser and dynamic stretches, both of which can be general or specific to the training session.

Because some kettlebell exercises are technically demanding integrated movements, it's important to introduce some movements to help teach correct technique as well as prepare and activate those muscles required for the workout ahead.

You should be aware of any client postural issues such as tight muscles (e.g. hip flexors, hamstrings, pecs) and weak muscles (glutes) so that these can be addressed with dynamic stretches. People that spend a lot of time sat down are likely to have a weak posterior chain.

To perform Kettlebell exercises effectively, warm up activities need to:

- increase blood flow to working muscles
- increase mobility and stability of the shoulder girdle
- activate the posterior chain
- increase hip mobility
- activate core muscles

Example Dynamic Stretches

Shoulder and Neck Rotations	
Purpose	Teaching Points
To mobilise the shoulder girdle and neck	1. Start with arms out to sides at shoulder height, one palm up, one palm down 2. Look towards the palm facing up 3. Rotate the shoulder joints to reverse the palm that is facing up/down 4. Simultaneously rotate the neck to look at the palm facing up 5. Slow, steady tempo, increasing ROM with each rep 6. Alternate rotations completing 8-10 each way

Chest Openers	
Purpose	Teaching Points
To mobilise the shoulder girdle, dynamically stretch the Pec Major & Anterior Deltoid, and to activate the mid/lower Trapezius & Rhomboids	1. Start with palms together in front of sternum 2. Open up chest by moving arms in a wide, horizontal arc at a steady tempo 3. Turn palms up towards back of the movement 4. Hold for a split second to feel stretch on chest and squeeze between scapula 5. Return to start position 6. Perform 8-10 reps

Vertical Push/Pull	
Purpose	Teaching Points
To mobilise the shoulder girdle, dynamically stretch the Latissimus Dorsi, and to activate the Lower Trapezius	1. Start at the bottom of a shoulder press position 2. Press arms above the head, stretching the lats at the top 3. Pull elbows down, into the side of the body depressing the shoulder girdle 4. Hold for a split second to feel the squeeze between the scapula 5. Repeat for 8-10 reps

Trunk Rotations	
Purpose	Teaching Points
To mobilise the lumbar vertebrae and dynamically stretch the obliques	1. Start with arms bent at shoulder height, hands in front of sternum 2. Keeping the pelvis pointing forwards, rotate through the trunk 3. Steady tempo, alternating sides 4. Increase ROM to allow heel to lift and pivot on balls of feet 5. Perform 8-10 reps each side

Squats	
Purpose	Teaching Points
To mobilise the hips, knees, & ankles, and to activate the glute max	1. Start with arms in a comfortable position, feet shoulder width, abs engaged 2. Initiate the squat by bending the hips and knees, keeping the chest up 3. Lower until thighs are parallel to floor, or a comfortable depth 4. Drive through the heels to return to the top and finish with full hip & kneed extension, 'squeezing' the glutes 5. Slow, steady tempo increasing ROM with each rep 6. Perform 8-10 reps

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Side Lunges	
Purpose	Teaching Points
To mobilise the hips, knees, & ankles, and to dynamically stretch the Hip Adductors	1. Start with feet hip width apart 2. Step the left foot out to the side, bending the hip & knees on landing 3. Keep the right leg straight 4. Squat into the left leg, stretching the adductors of the trailing right leg 5. Reach the right hand towards the left foot, keeping the chest lifted 6. Drive back through the left heel to return to the start position, and repeat to the right 7. Perform 8-10 reps each side

Single Leg Touchdowns	
Purpose	Teaching Points
To mobilise the hips, knees, & ankles, and to activate the Glute Max and ankle proprioception	1. Start with feet hip width apart, lift right foot 2. Initiate the movement by tipping from the hip, like a deadlift 3. Push the bum back behind, with a slight bend in the knee 4. Lower until torso is approx 30º from the floor 5. Reach right hand towards left foot 6. Return to start position, 'squeeze' the Glute Max into full extension 7. Attempt to keep the right foot off the ground for the complete set 8. Perform 8-10 reps and repeat on the other side

Hip Openers	
Purpose	Teaching Points
To mobilise the hips, knees, & ankles, and to dynamically stretch the Hip Flexors	1. Start in a press up position, hands under shoulders 2. Lift the left leg through, bending the hip and knee, to land the foot to the outside of the left hand 3. Ease forward to stretch the hip flexors 4. Return leg back to start position and repeat on the other leg 5. Increase ROM each rep 6. Perform 8-10 reps each side

Glute Bridge	
Purpose	Teaching Points
To activate the Glute Max and Core muscles	1. Lie flat on your back, with knees bent, feet flat, heels close to bum, arms relaxed by sides 2. Activate the core muscles by hollowing the naval and squeezing the glutes 3. Push through the heels to lift the hips off the ground to form a straight line between shoulders and knees. Knees at 90º. 4. Hold for a second to 'squeeze' the Glute Max, maintaining a neutral spine 5. Slowly return to the start position, momentarily touching the floor 6. Repeat for 8-10 reps

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Cool Down

Cooling down after a workout is as important as warming up. After physical activity, your heart is still beating faster than normal, your body temperature is higher and your blood vessels are dilated. This means if you stop too fast, you could suffer from blood pooling. A pulse lowering activity allows for a gradual decrease, bringing the body closer to its resting state by the end of the workout.

It's good to perform static stretches at the end of the cool down to maintain or develop flexibility.

4.2 Exercise Selection & Order - The Main Conditioning Component

Considerations need to be made regarding the acute variables shown in the table below, but also regarding the exercises selected and exercise order. Exercise selection is particularly relevant to the clients training experience, generally and specifically to kettlebell training, as well as their goals, time available, posture, and training frequency.

Training Outcome/Variable	Strength	Hypertrophy	Endurance
Intensity	High	Moderate	Low
Load (% 1RM)	>85%	67-85%	<67%
Reps	1 - 5	6 - 12	>12
Sets	2 - 6	3 - 6	2 - 3
Rest between sets	3 - 5 mins	1 - 2 mins	30 - 60s
Frequency	1 - 2/week	1 - 2/week	2 - 3/week

Select the appropriate exercise complexity to fit your client's needs, choosing the most relevant form of each exercise to challenge appropriately i.e. progressions and regressions.

Basic programme considerations include the following:

- compound vs. isolation
- complexity
- balance of muscles used

Exercise order should follow the guidelines for all types of resistance training:

- complex exercises before simpler exercises
- larger muscle groups before smaller muscle groups
- compound before isolation
- equal rest between muscle groups
- core exercises last

Unsuitable exercise selection and order can lead to premature fatigue, poor posture, goals not being reached, and potentially injury.

Big exercises, that either require a lot of effort in terms of the nervous system, i.e. total body exercises – snatch, swing, clean & press, high pull, or, the heavy exercises which use a large amount of weight, should be performed early in the session when clients have the most energy to lift the most amount of weight, and do the exercise as efficiently, with good technique. If clients did the more challenging exercises at the end when they are more tired, they're more likely to do them with poor form, increasing risk of injury, and they also won't be able to lift as much weight.

Sets & Reps Guidelines

The numbers of sets and reps given to a client, should be relative to the outcome that you are trying to achieve with them. For exampl, if their goals are related to hypertrophy then they should be performing reps between 6-12 with 3-6 sets. However, you may have reasonable rationale to not conform with these guidelines, for example, your client may be new to kettlebell training and therefore a higher rep range would be appropriate for the client to learn the techniques involved through higher repetition of the movement pattern.

Example of beginners whole body muscular endurance kettlebell programme:

Warm Up			
Exercise	**Speed/RPM/Level**	**RPE**	**Duration**
Treadmill	5 - 10 kph	Progress 1-5	5 mins
Dynamic Stretches (8-10reps): Chest Opener, Arm Pull Down, Shoulder Rotations, Squat with Arm Reach, Side Lunges, Hip Openers, Glute Bridge			
Main Component			
Exercise	**Sets/Reps**	**Rest**	**Adaptations**
KB Swings	2 x 12-15	60s	One Arm Swings
One Arm KB Row	2 x 12-15	60s	Lunge Stance
KB Goblet Squat	2 x 12-15	60s	Bodyweight Squats
One Arm KB Press	2 x 12-15	60s	KB Clean & Press
Cool Down			
Exercise	**Speed/RPM/Level**	**RPE**	**Duration**
Upright Bike	Level 6-1, decrease RPM	Regress to 2-3	3-5 mins
Static Stretches: Total body maintenance or developmental stretching			

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Advanced Programme Design

When designing more advanced programmes, in addition to the rules of basic programming which you should always follow, you should also consider the following:

- Client posture. Most of your clients sit at a desk too much and thus have an underdeveloped posterior chain, rounded shoulders and a weak back. Always try to include pulling movements that utilise the big muscles on the back in a variety of ways through both the vertical and horizontal to help strengthen them to counter balance their day job.
- Unilateral, rotational and total body movements to help further develop client balance and mobility.
- Increasing the intensity of the workout through advanced overload training techniques (such as super-setting) or by planning split routines.

Example of kettlebell conditioning for an advanced client:

Warm Up			
Exercise	**Speed/RPM/Level**	**RPE**	**Duration**
Treadmill	5 - 10 kph	Progress 1-5	5 mins
Dynamic Stretches (8-10reps): Chest Opener, Arm Pull Down, Shoulder Rotations, Squat with Arm Reach, Side Lunges, Hip Openers, Glute Bridge			
Main Component			
Exercise	**Sets/Reps**	**Rest**	**Adaptations**
KB Clean, Squat, & Press	3 x 8-10	60s	KB Clean & Press
KB One Arm High Pull	3 x 8-10	60s	2 Arm High Pull
KB One Arm Snatch	3 x 8-10	60s	2 Arm Snatch
KB Split Squat	3 x 8-10	60s	KB Lunges
TGU	3 x 6	60s	½ TGU
Cool Down			
Exercise	**Speed/RPM/Level**	**RPE**	**Duration**
Upright Bike	Level 6-1, decrease RPM	Regress to 2-3	3-5 mins
Static Stretches: Total body maintenance or developmental stretching			

UNIT 2: INSTRUCTING A KETTLEBELL SESSION

Using kettlebells requires sound technique. Most Kettlebell exercises are relatively easy to understand, but may take some time to master.

Aim: To provide you with the skills required to instruct a safe and effective Kettlebell session

Learning outcomes

By the end of this unit you will:

- Be able to effectively instruct Kettlebell exercises to a client

1. Instructing Kettlebell Exercises

Session Preparation

Ensure that you have planned the workout ahead specifically for the client and have the correct sized kettlebells available for the exercises selected, allowing for possible regressions or progressions of weight that may be required. Find a position where there is sufficient space on a floor that is clear and stable.

1.1 Introducing Kettlebell Exercises to the Client

If the client is partaking in Kettlebell exercises for the first time, they will need to be briefed on some keys aspects of their use, before you move into any practical demonstrations and client participation.

Some key points you could briefly cover include:

- The Kettlebell itself, including the reference points that you will be referring to (Handle, Horns, Bell)
- The benefits - why are you introducing Kettlebell training into their sessions
- Health & safety considerations including associated risks

1.2 Aims & Objectives

Before we start with the training aspect of the session, it's important to begin the session by introducing the aims and objectives, outlining the content of the workout and linking the purpose of each exercise and indeed the session as a whole to their own training goals.

When introducing a new Kettlebell exercise to your clients, ensure you clearly explain the aims and objectives of that specific exercise, including the key technique points needed to perform the exercise effectively.

Example exercise introduction:

"We're going to have a go at the Kettlebell Swing. This exercise is great for the muscles of the posterior chain; Glute Max, Hamstrings and Erector Spinae, and due to the dynamoic nature of the exercise it will also be great for the CV system. The aim of this exercise is to move the kettlebell from between your thighs up to shoulder height, at speed, using a movement we are going to refer to as the 'hip snap'. Let me show you a demonstration, and then we can go through the technique in more detail."

1.3 Demonstrations

As will all exercises that are new to a client, a technically correct demonstration is in an important factor in teaching them safe and effective technique. Visual learners will find it particularly important. During dynamic exercises such as the swing, it will be beneficial to

provide a silent demo, with clear and concise teaching points before and after the demonstration. Ensure that

1.4 Teaching Points and Communication Skills

When giving teaching points to a client, they should be concise and succinct allowing the recipient to quickly and easily understand what is being instructed. Overuse of teaching points can be confusing and cause 'information overload'! Give them sparingly and allow the recipient to adapt and execute what you are instructing and follow up with praise, before contemplating giving more. Teaching points that focus on safety should precede those that focus on effectiveness.

It is far more motivational for clients to hear teaching points in the positive form rather than the negative form. For example, 'keep a slight bend in your elbow' is more appropriate than 'don't lock out your elbow', despite being the same message.

Another way to think about it is to tell them what they should be doing, not what they shouldn't be doing.

Excellent instruction and communication is vital in the delivery of kettlebell training to your clients. Good instructional skills will enable the fitness professional to maximise both the safety and effectiveness of a training session. Good communication skills inform the client in a manner in which they quickly and easily understand, through the use of both verbal and visual cues. These verbal and visual cues include a large vocabulary of verbal instructions, use of imagery, hand signals, facial expressions, voice intonation and demonstrations of excellent exercise technique.

1.5 Positioning and Moving to Observe Client Technique

Move around your client and observe their performance of the exercise from different angles, to ensure that they have correct posture and technique. Provide them with praise for the aspects that they are doing well and provide constructive, sandwiched, feedback to help them improve performance where applicable. When communicating with them, ensure you are facing them and preferably in front of them, so they can easily hear your instructions.

It's important to coach the client to keep a good posture throughout all of their lifts. Encourage them to maintain a neutral spine by engaging their core in order to minimise the stress on the spine and its structures (discs, ligaments etc).

1.6 Identify Alternatives and Adaptations

If appropriate, identify alternative exercises or adapt the exercise to ensure the client is able to perform the exercise with good form if their technique is compromised; or conversely, if they are insufficiently challenged because the exercise is too easy for them.

1.7 Providing the client with feedback & evaluating your performance

It's important to provide your client with feedback on their performance in rest periods, when they have finished a specific exercise, and when the session is complete. In rest periods, the focus could be on providing them with specific feedback that they can focus on in the next set. This could also require another demo to reinforce this. When the client has finished all their sets of a particular exercise, you should praise them on their performance and, if appropriate, give them some focus for their future practice. Gaining feedback from the client will also aid your ability to programme the exercise in future sessions. As will all sessions, final feedback to the client addressing any general findings/ comments can be done at the end of the session.

Each session should end with an evaluation by the instructor and participants. Encourage feedback from your clients. Did they enjoy it, could the session be improved? Did it meet their needs?

If teaching a class, try to get feedback from a number of the group; be mindful of an individual who may be particularly vocal (and often critical) as they may not speak for the majority of the class. Add to this feedback your own evaluation of the session. Often the reality of a session is different from what was planned. Was the session safe and effective? Were there any difficulties? Could the session be improved?

Self-reflection is a key skill for an instructor to develop in order to grow and progress as a professional.

All evaluations should be recorded in order to help you progress and develop and create an action plan to improve your teaching technique.

Student Check List:

Do you…

- ☐ Understand the history of Kettlebell training?
- ☐ Understand the benefits of Kettlebell training?
- ☐ Understand how to incorporate Kettlebell exercises into a training programme?
- ☐ Understand how to design a Kettlebell programme?

Have you…

- ☐ Completed the Kettlebell theory assessment?
- ☐ Prepared for your practical training day by…
  - ☐ Learning the names of the Kettlebell exercises in this manual?
  - ☐ Learning the purpose of the Kettlebell exercises in this manual?
  - ☐ Learning the key teaching points associated with each Kettlebell exercise?
  - ☐ Practiced performing the Kettlebell exercises in this manual?

EUROPEAN

PERSONAL TRAINING

INSTITUTE