

Full Assessment

Prepared for:

November 27, 2010



Identification

Client #	Name	Birthdate	Sex	Height	Weight	Activity Level
cossec01		June 23, 1978	Female	163.0 cm	49.5 kg	Low
Evaluator: Evaluation Date:	November 27, 2010	Clinic:	Freed	om Studio		

Your BioPrint™: The Straight Facts

Have you noticed how a tree trunk grows straight up, and that the branches tend to be symmetrical around the solid core? This "posture" gives the tree the strength to withstand the effects of wind and gravity.

Posture

Optimal posture allows us to function most efficiently. In correct posture (side view), a line, similar to a plumb line used in building, dropped from the level of your ear will fall straight to your shoulder, through the middle of your pelvis, knees and feet. Your head, trunk, pelvis and knees are "stacked", one on top of the other. Deviations from this positioning can have negative consequences on your health and well-being. Correcting postural asymmetry may make you feel and look better.

Your Postural Evaluation

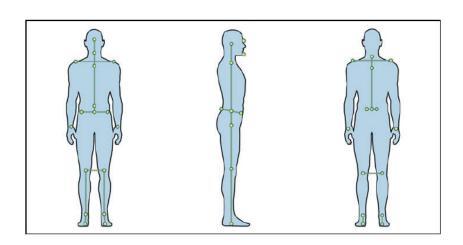
Your postural deviations are detailed in the first section of your BioPrint. You will see photos of yourself from the side, front and back. Corresponding measures indicate how far you are from plumb, which appears in your photographs as solid lines. Your center of gravity, or how your body is balanced over your feet, is also illustrated.

Your Customized Exercise Program

The second section of the BioPrint is your individualized 10-week exercise (strengthening and stretching) program. This routine is designed to target the root of the deviations listed in order or priority in your report. The goal is to balance the activity of opposing muscle groups acting on your joints and/or body segments in order to return you to correct posture. Problems in posture may be related to some muscles being over-developed and needing to be stretched, and others being weak and needing to be strengthened.

Carefully review your program with your Healthcare Professional to ensure you understand the form and intensity of the suggested exercises. Maximum benefit occurs when the exercises are done correctly. Warm up prior to performing your exercises. Drink water while exercising, wear comfortable clothing and breathe naturally.

The BioPrint is a biomechanical assessment system that analyzes posture using innovative technology and recommends personalized corrective exercise programs. The BioPrint is not intended to diagnose or treat serious neck or spinal diseases or injuries. If you experience any unusual pain while performing the recommended stretching and exercise routines, or if you suspect that you have an injury or disease affecting your neck or spine, notify your Healthcare Practitioner immediately.



View from the Side (lateral)

How many degrees you are from vertical

Body Segment	Direction	Angle
Head to Shoulders	Anterior	5.4°
Shoulders to Pelvis	Posterior	4.8°
Hips to Knees	Anterior	3.8°
Knees to Feet	Anterior	4.6°

Note: The ideal angle should be 0°.

How many degrees you are from horizontal

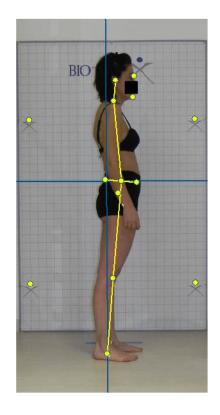
Body Segment	Direction	Angle
Pelvis	Anterior	4.1°

Note: There is a normal forward angle between the anterior and posterior pelvic markers of 10°. Angles greater than 15° indicate anterior pelvic tilt - angles less than 5° indicate posterior pelvic tilt.

How far are you from vertical

Reference Point on	Direction	Distance
Head	Anterior	5.1 cm
Shoulders	Anterior	4.0 cm
Pelvis	Anterior	7.5 cm
Hips	Anterior	6.1 cm
Knees	Anterior	3.1 cm

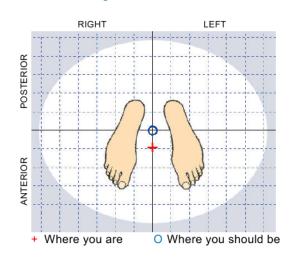
Note: The ideal distance should be 0 cm.



Your Projected Center Of Gravity

Displacement	Direction	Distance
Left-right	Right	0.1 cm
Anterior-posterior	Anterior	4.5 cm
Displacement		4.5 cm

Note: The ideal distance should be 0 cm.



Note: Each division equals 5 cm.

Moments of Force and Reaction Forces

Segment	Actual wei	ght Lever arm	Moment of	force	Joint reaction force	Effective weight
Head	4.0 kg	1.0 cm	0.4 Nm	2	49.5 N	5.0 kg
Head and Trunk	28.6 kg	0.9 cm	2.7 Nm	C	334.1 N	34.1 kg

View from the Front (anterior)

How many degrees you are from horizontal

Body Segment	Elevated Side	Angle
Shoulders	Right	1.9°
Pelvis	Right	0.9°
Knees	Right	1.5°

Note: The ideal angle should be 0°.

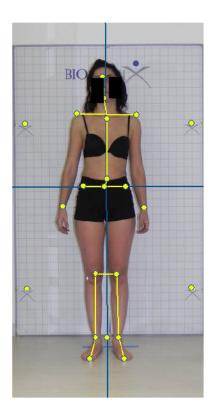
How far are you from vertical

Reference Point on	Direction	Distance
Forehead	Right	1.7 cm
Shoulders	Left	0.5 cm
Umbilicus	Left	0.3 cm
Pelvis	Right	1.0 cm
Knees	Right	0.5 cm
Toes	Right	0.1 cm

Note: The ideal distance should be 0 cm.

How many degrees your feet are rotated

Body Segment	Direction	Angle
Left foot	External Rotation	11.9°
Right foot	External Rotation	12.3°



View from the Back (posterior)

How many degrees you are from horizontal

Body Segment	Elevated Side	Angle
Shoulders	Right	0.3°
Pelvis	Left	1.0°
Knees	Left	0.0°

Note: The ideal angle should be 0°.

How far are you from vertical

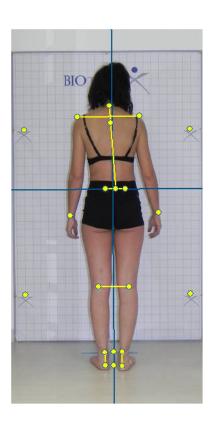
Reference Point on	Direction	Distance	
Shoulders	Left	2.2 cm	
7th Cervical	Left	1.5 cm	
5th Thoracic	Left	0.9 cm	
Pelvis	Right	1.7 cm	
Knees	Right	0.3 cm	
Ankles	Left	0.0 cm	

Note: The ideal distance should be 0 cm.

How many degrees are your feet are from vertical

non many augrees are your rectars from refined.			
Body Segment	Direction	Angle	
Left foot	Supination	1.4°	
Right foot	Supination	1.3°	

Note: The ideal angle should be 0° .



Postural Deviations and Associated Exercises

Postural Deviation	Movement to Correct Deviation	Goal of Exercise
Posterior pelvic tilt	Hip Extension (Left)	Stretch
	Hip Extension (Right)	Stretch
Posterior deviation of the trunk	Hip Extension (Left)	Stretch
	Hip Extension (Right)	Stretch
	Scapula Adduction	Strengthen
	Shoulder Adduction	Stretch
Genu valgum left	Hip Abduction (Left)	Stretch
	Hip Adduction (Left)	Strengthen
Anterior translation of the hip		
External rotation of the right foot		

External rotation of the left foot

Exercise and Stretching Schedule

Session 1 (1/2)

Exercise	Name	Image	Week 1	Week 2	Week 3	Week 4
1 - Seate	ed hamstring stretch- LEFT sec.		123	1 2 3 4 5 6 7	123	1 2 3 4 5 6 7
2 - Seate	ed hamstring stretch - RIGHT sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3 - Stand band	ding shoulder pull-back with - BILATERAL rep.		1 2 3 4 5 6 7	1 2 3	123	1 2 3 4 5 6 7
4 - Pec s	stretch - BILATERAL sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7	1 2 3 4 5 6 7
5 - Figur	re 4 stretch - LEFT sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7	1 2 3 4 5 6 7
6 - Front	t inner thigh lift - LEFT rep.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7 - Figur	re 4 stretch - RIGHT sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3x30	sec.		1234567	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
12- Hips : 3x30 :		Se	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8 - Chin			123	1 2 3 4 5 6 7	123	1 2 3 4 5 6 7

Session 1 (2/2) Strengthening - Stretching

Exercise Name	Image	Week 1	Week 2	Week 3	Week 4
9 - Neck / head lateral flexion - LEFT 3x30 sec.		123	1 2 3	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10- Neck / head lateral flexion - RIGHT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Session 2 (1/2)

Exercise Name	Image	Week 5	Week 6	Week 7
13- Lying hamstring stretch - LEFT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	123
14- Lying hamstring stretch - RIGHT 3x30 sec.	1	1234567	1 2 3 4 5 6 7	123
3 - Standing shoulder pull-back with band - BILATERAL 3x15 rep.		1234567	1 2 3	123
4 - Pec stretch - BILATERAL 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
5 - Figure 4 stretch - LEFT 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
15- Inner thigh lift - LEFT 3x15 rep.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
7 - Figure 4 stretch - RIGHT 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
11- Knees to chest 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
12- Hips to heels 3x30 sec.	Se	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8 - Chin drop 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	123

Session 2 (2/2)

Exercise Name	Image	Week 5	Week 6	Week 7
9 - Neck / head lateral flexion - LEFT 3x30 sec.		123	1 2 3	1 2 3 4 5 6 7
10- Neck / head lateral flexion - RIGHT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Session 3 (1/2)

Exercise Name	Image	Week 8	Week 9	Week 10
13- Lying hamstring stretch - LEFT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	123
14- Lying hamstring stretch - RIGHT 3x30 sec.	1	1234567	1 2 3	123
3 - Standing shoulder pull-back with band - BILATERAL 3x15 rep.		1234567	1 2 3	123
4 - Pec stretch - BILATERAL 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
5 - Figure 4 stretch - LEFT 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
16- Inner thigh lift with weight - LEFT 3x15 rep.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
7 - Figure 4 stretch - RIGHT 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
11- Knees to chest 3x30 sec.		1 2 3 4 5 6 7	1 2 3	1 2 3 4 5 6 7
12- Hips to heels 3x30 sec.	Se	1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
8 - Chin drop 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Session 3 (2/2)

Exercise Name	Image	Week 8	Week 9	Week 10
9 - Neck / head lateral flexion - LEFT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7
10- Neck / head lateral flexion - RIGHT 3x30 sec.		1 2 3 4 5 6 7	1 2 3 4 5 6 7	1 2 3 4 5 6 7

Exercises and Stretching

Strengthening - Stretching

1 - Seated hamstring stretch- LEFT

Position

Sit on the floor with the left leg extended in front of you and the right leg flexed at the knee, making a figure 4 shape. Reach forward from the hip, and hold onto your left foot.

Action

Pull your foot and bring your chest forward over your thigh until you feel a stretch in the back of your left thigh. Hold the stretch for 30 seconds and return slowly to the starting position. Repeat.

*Note: If you are unable to grasp your foot, a folded towel can be used as an extension of the arms.



2 - Seated hamstring stretch - RIGHT

Position

Sit on the floor with the right leg extended in front of you and the left leg flexed at the knee, making a figure 4 shape. Reach forward from the hip, and hold onto your right foot.

Action

Pull your foot and bring your chest forward over your thigh until you feel a stretch in the back of your right thigh. Hold the stretch for 30 seconds and return slowly to the starting position. Repeat.

*Note: If you are unable to grasp your foot, a folded towel can be used as an extension of the arms.



3 - Standing shoulder pull-back with band - BILATERAL

Position

Stand facing a stationary object on which an elastic resistance band can be securely attached at shoulder height. Raise both arms front and hold on to the ends of the band with each hand, palm facing in. Make sure there is sufficient tension in the band so it can provide adequate resistance.

Action

While maintaining straight elbows, pull the elastic by squeezing the muscles in between your shoulder blades. Return slowly to the starting position and repeat.



4 - Pec stretch - BILATERAL

Position

Stand facing a corner. Raise both of your arms up in an L shape with your elbows at shoulder height. Place your forearms and elbows against the walls.

Action

Lean your bodyweight forward until you start to feel a pulling sensation in the shoulder and chest area. Hold the stretch for 30 seconds. Slowly return to the starting position and repeat.



5 - Figure 4 stretch - LEFT

Position

Lie on your back with your knees to your chest. Cross your left leg over the right, placing your left ankle above the right knee, creating a figure "4". Bend the right knee and hold the back of the right thigh with both hands.

Action

Gently pull your right leg in closer until you feel a pulling sensation in the hip muscles. Hold the stretch for 30 seconds and slowly return to the starting position. Repeat.



6 - Front inner thigh lift - LEFT

Position

Lie on your left side with both legs in line with your torso. Your head is resting on your left arm. Bend your right leg and place your right foot flat on the floor, just behind your left knee.



Action

Slowly, lift your left inner thigh up toward the ceiling while the hips and shoulders remain still throughout the movement. Return slowly to the starting position and repeat.

7 - Figure 4 stretch - RIGHT

Position

Lie on your back with your knees to your chest. Cross your right leg over the left, placing your right ankle above the left knee, creating a figure "4". Bend the left knee and hold the back of the left thigh with both hands.



Action

Gently pull your left leg in closer until you feel a pulling sensation in the hip muscles. Hold the stretch for 30 seconds and slowly return to the starting position. Repeat.

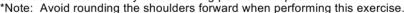
8 - Chin drop

Position

Sit in a chair with both feet flat on the floor, hands resting on your thighs.

Action

Drop your chin toward your chest. Relax the muscles in the back of your neck. Hold the position for 30 seconds and return slowly to the starting position. Repeat.





9 - Neck / head lateral flexion - LEFT

Position

Sit in a chair with both feet flat on the floor, hands resting on your thighs.

Action

Tilt your head to the right side. Relax and hold the position for 30 seconds. Return slowly to the starting position and repeat.



10 - Neck / head lateral flexion - RIGHT

Position

Sit in a chair with both feet flat on the floor, hands resting on your thighs.

Action

Tilt your head to the left side. Relax and hold the position for 30 seconds. Return slowly to the starting position and repeat.



11 - Knees to chest

Lie on your back. Bring both of your knees to your chest, with both feet off of the floor. Your hands are tucked behind your thighs, just above the knees.

Action

Gently hug your knees into your chest. Hold the stretch for 30 seconds. Return slowly to the starting position and repeat.



12 - Hips to heels

Sit on the floor with your hips resting back on your heels. The tops of your feet are relaxed on the floor.

Action

While maintaining this position, bend over and place both of your arms on the floor, palms facing down and your head relaxed between your arms. Pull your abdominal muscles in and round your lower back until you feel a pulling sensation in your lower and middle back. Hold the position for 30 seconds. Slowly return to the starting position and repeat.



13 - Lying hamstring stretch - LEFT

Position

Lie on your back with your right leg extended on the floor, aligned with your hips and torso. The left leg is extended towards the ceiling. While keeping the left knee straight, reach toward and wrap a towel around your left foot. Hold onto both ends of the towel with your hands.



Action

Gently pull your leg closer to you until a pulling sensation is felt in the back of the left thigh. Hold the stretch for the 30 seconds, gradually relax and repeat.

14 - Lying hamstring stretch - RIGHT

Position

Lie on your back with your left leg extended on the floor, aligned with your hips and torso. The right leg is extended towards the ceiling. While keeping the right knee straight, reach toward and wrap a towel around your right foot. Hold onto both ends of the towel with your hands.



Gently pull your leg closer to you until a pulling sensation is felt in the back of the right thigh. Hold the stretch for the 30 seconds, gradually relax and repeat.



15 - Inner thigh lift - LEFT

Lie on your left side with both legs in line with your torso. Your head is resting on your left arm. Bend and cross your right leg over the left, placing the right foot on the floor.



Slowly lift the bottom leg up while the hips and shoulders remain still throughout the movement. Return slowly to the starting position and repeat.

16 - Inner thigh lift with weight - LEFT

Position

Attach a weight around your left ankle. Lie on your left side with both legs in line with your torso. Your head is resting on your left arm. Bend and cross your right leg over the left, placing the right foot on the floor.



Action

Slowly lift the bottom leg up while the hips and shoulders remain still throughout the movement. Return slowly to the starting position and repeat.

Important Information

The findings in this BioPrint are intended to provide a biomechanical assessment of your posture and to suggest an individualized exercise program to help you correct the minor postural deviations identified. To ensure that the suggested exercise program is right for you, the BioPrint must be reviewed and approved by your Healthcare Provider. This will be indicated by his/her signature below. Once your Healthcare Provider has signed your BioPrint, he/she should discuss it with you and advise you on how to perform your personalized exercise program. These exercises are intended to help you achieve a better, more natural posture. The BioPrint is not intended to diagnose serious neck or spinal diseases or injuries nor are the recommended exercises intended to treat such conditions.

If you experience any unusual pain while performing the recommended stretching and exercise routines, or if you suspect that you have an injury or disease affecting your neck or spine, notify your healthcare practitioner immediately.

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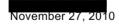
Summary

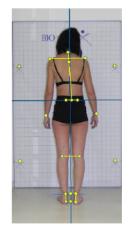
Client # Name Birthdate Sex Height Weight Activity Level

cossec01 June 23, 1978 Female 163.0 cm 49.5 kg Low

Clinic:

Evaluator: Evaluation Date:





How many degrees you are from vertical

Body Segment	Direction	Angle
Head to Shoulders	Anterior	5.4°
Shoulders to Pelvis	Posterior	4.8°
Hips to Knees	Anterior	3.8*
Knees to Feet	Anterior	4.6°

Note: The ideal angle should be 0°.

How many degrees you are from horizontal

Body Segment	Direction	Angle
Pelvis	Anterior	4.1°

Note: There is a normal forward angle between the anterior and posterior pelvic markers of 10°. Angles greater than 15° indicate anterior pelvic tilt - angles less than 5° indicate posterior pelvic tilt.

How far are you from vertical

Reference Point on	Direction	Distance
Head	Anterior	5.1 cm
Shoulders	Anterior	4.0 cm
Pelvis	Anterior	7.5 cm
Hips	Anterior	6.1 cm
Knees	Anterior	3.1 cm

Note: The ideal distance should be 0 cm.

How many degrees you are from horizontal

Body Segment	Elevated Side	Angle
Shoulders	Right	0.3°
Pelvis	Left	1.0°
Knees	Left	0.0°

Note: The ideal angle should be 0*.

How far are you from vertical

Reference Point on	Direction	Distance
Shoulders	Left	2.2 cm
7th Cervical	Left	1.5 cm
5th Thoracic	Left	0.9 cm
Pelvis	Right	1.7 cm
Knees	Right	0.3 cm
Ankles	Left	0.0 cm

Note: The ideal distance should be 0 cm.

How many degrees are your feet are from vertical

Body Segment	Direction	Angle		
Left foot	Supination	1.4°		
Right foot	Supination	1.3°		

Note: The ideal angle should be 0*.

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How many degrees you are from horizontal

Body Segment	Elevated Side	Angle
Shoulders	Right	1.9°
Pelvis	Right	0.9°
Knees	Right	1.5°

Note: The ideal angle should be 0°.

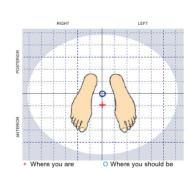
How far are you from vertical

Forehead Right 1.7 cm Shoulders Left 0.5 cm Umbilious Left 0.3 cm
Umbilicus Left 0.3 cm
Pelvis Right 1.0 cm
Knees Right 0.5 cm
Toes Right 0.1 cm

Note: The ideal distance should be 0 cm.

How many degrees your feet are rotate

Body Segment	Direction	Angle
Left foot	External Rotation	11.9°
Right foot	External Rotation	12.3°



Note: Each division equals 5 cm.

Displacement	Direction	Distance
Left-right	Right	0.1 cm
Anterior-posterior	Anterior	4.5 cm
Displacement		4.5 cm

Note: The ideal distance should be 0 cm.

Moments of Force and Reaction Forces

Segment	Actual	Lever arm	Moment of	force	Joint reaction force	Effective
Head	4.0 kg	1.0 cm	0.4 Nm	2	49.5 N	5.0 kg
Head and Trunk	28.6 kg	0.9 cm	2.7 Nm	C	334.1 N	34.1 kg

Postural Deviations and Associated Exercises

Postural Deviation	Movement to Correct Deviation	Goal of Exercise
Posterior pelvic tilt	Hip Extension (Left)	Stretch
	Hip Extension (Right)	Stretch
Posterior deviation of the trunk	Hip Extension (Left)	Stretch
	Hip Extension (Right)	Stretch
	Scapula Adduction	Strengthen
	Shoulder Adduction	Stretch
Genu valgum left	Hip Abduction (Left)	Stretch
	Hip Adduction (Left)	Strengthen

External rotation of the left foot

Anterior translation of the hip
External rotation of the right foot

Exercise and \$	Stretching Schedule	Strengthen	 Stretch
Session	Exercise Name		Repetitions
Session 1	1 - Seated hamstring stretch- LEFT		3x30 sec.
	2 - Seated hamstring stretch - RIGHT		3x30 sec.
	3 - Standing shoulder pull-back with band - BILATERAL		3x15 rep.
	4 - Pec stretch - BILATERAL		3x30 sec.
	5 - Figure 4 stretch - LEFT		3x30 sec.
	6 - Front inner thigh lift - LEFT		3x15 rep.
	7 - Figure 4 stretch - RIGHT		3x30 sec.
	11 - Knees to chest		3x30 sec.
	12 - Hips to heels		3x30 sec.
	8 - Chin drop		3x30 sec.
	9 - Neck / head lateral flexion - LEFT		3x30 sec.
	10 - Neck / head lateral flexion - RIGHT		3x30 sec.
Session 2	13 - Lying hamstring stretch - LEFT		3x30 sec.
	14 - Lying hamstring stretch - RIGHT		3x30 sec.
	3 - Standing shoulder pull-back with band - BILATERAL		3x15 rep.
	4 - Pec stretch - BILATERAL		3x30 sec.
	5 - Figure 4 stretch - LEFT		3x30 sec.
	15 - Inner thigh lift - LEFT		3x15 rep.
	7 - Figure 4 stretch - RIGHT		3x30 sec.
	11 - Knees to chest		3x30 sec.
	12 - Hips to heels		3x30 sec.
	8 - Chin drop		3x30 sec.
	9 - Neck / head lateral flexion - LEFT		3x30 sec.
	10 - Neck / head lateral flexion - RIGHT		3x30 sec.
Session 3	13 - Lying hamstring stretch - LEFT		3x30 sec.
	14 - Lying hamstring stretch - RIGHT		3x30 sec.
	3 - Standing shoulder pull-back with band - BILATERAL		3x15 rep.
	4 - Pec stretch - BILATERAL		3x30 sec.
	5 - Figure 4 stretch - LEFT		3x30 sec.
	16 - Inner thigh lift with weight - LEFT		3x15 rep.
	7 - Figure 4 stretch - RIGHT		3x30 sec.
	11 - Knees to chest		3x30 sec.
l	12 - Hips to heels		3x30 sec.
1	8 - Chin drop		3x30 sec.
1	9 - Neck / head lateral flexion - LEFT		3x30 sec.
	10 - Neck / head lateral flexion - RIGHT		3x30 sec.