

LESMILLS CXWORX™

30 MINUTE REVOLUTIONARY CORE TRAINING



FEATURES: • Applied Science of CXWORX™
• Research: Muscle Activity During CXWORX™

PRESENTERS FROM: New Zealand

RELEASE
01



From L-R: Corey Baird, Susan Trainor, Dan Cohen

Welcome to Les Mills CXWORX™ – Revolutionary Core Training!

This is a cutting-edge 30-minute workout that strengthens and tones the functional muscles of your core or mid-section, and the warm up immediately flicks the switch to engage that area.

The hard work really begins in Track 2, which unleashes a nasty combination of Hovers in three stages – the basic, around-the-clock with each arm and repeat with leg lift – super-setted by Leg Extensions to test the lower abs.

Then, it's your prerogative to shift attention to Standing Strength for the first time, using resistance tubing to add a little spice to the Twisting Lunges and balance poses.

Next comes *More* – more Standing Strength and more resistance tubing to load the glutes and hips during Squats and Leg Lifts.

Back down on the floor, Track 5 supersedes the obliques through Lying Twists, Side Hovers and Mountain Climbers ... moving you *Closer* to the end of your class.

And before you know it, your work is done, rounding off with Horse Stance Pointers and Upper Body Extensions that target your back muscles.

It's short and sweet ... but just intense enough that you know you'll be back for more!

CXWORX™ 01

Dan Cohen (New Zealand) is an International Master Trainer for BODYPUMP™, a co-Program Director of both BODYCOMBAT™ and CXWORX™ and a passionate mixed martial artist based in Auckland.

Susan Trainor (New Zealand) is the Program Director for BODYVIVE™ and co-Program Director for CXWORX™. She has previously performed and taught with some of the leading dance companies in New Zealand and Australia.

Corey Baird (New Zealand) is a Personal Trainer and Pilates teacher at Les Mills Auckland. He is also a Technical Consultant for BODYBALANCE™/BODYFLOW®, BODYPUMP™ and CXWORX™ programs, and last presented on BODYBALANCE™/BODYFLOW® 50.

CREDITS

Choreography: Susan Trainor and Dan Cohen, **Technical Consultants:** Bryce Hastings and Corey Baird, **Group Fitness Director:** Jackie Mills, **Creative Director:** Janine Phillips, **Program Coach:** Janine Phillips, **Program Planners:** Taimane Elise and Michelle Farrier

© All rights reserved. No part of these notes may be used, stored or reproduced in any form or by any means without prior written permission from Les Mills International Limited. Requests and enquiries concerning reproduction and rights should be addressed to Les Mills International Limited, 22 Centre Street, Freemans Bay, Auckland, New Zealand, PO Box 91137, Victoria Street West, Auckland 1142. Telephone +64 (9) 366-9900.

TRACK TYPE	SONG TITLE	ARTIST	DURATION
1 WARMUP	Hey, Soul Sister © 2009 Sony Music Entertainment. Under license from The Sony Music Custom Marketing Group, a division of Sony Music Entertainment. Written by: Monahan, Lind, Björklund	Train	3:34
2 CORE STRENGTH 1	When You Touch Me (Bart B More Remix) © Loaded Records 2008. Written by: Wiltshire, Small, Ellis	Freemasons	5:59
3 STANDING STRENGTH 1	My Prerogative © 2011 Les Mills Music Licensing Ltd. Written by: Brown, Griffin, Riley	Gauze	4:48
4 STANDING STRENGTH 2	More © 2010 LaFace Records, a unit of Sony Music Entertainment. Under license from The Sony Music Custom Marketing Group, a division of Sony Music Entertainment. Written by: RedOne, Hinzshaw Jr, Raymond	Usher	3:52
5 CORE STRENGTH 2	Closer © 2011 Les Mills Music Licensing Ltd. Written by: Eriksen, Hermansen, Smith, Stray, Belte	Chris Crew	5:54
6 CORE STRENGTH 3	One Step At A Time © 2007 RCA/JIVE Label Group, a unit of Sony Music Entertainment. Under license from The Sony Music Custom Marketing Group, a division of Sony Music Entertainment. Written by: Evans, Hansen, Jeberg, Nevill	Jordin Sparks	3:24
	One Step At A Time © 2007 RCA/JIVE Label Group, a unit of Sony Music Entertainment. Under license from The Sony Music Custom Marketing Group, a division of Sony Music Entertainment. Written by: Evans, Hansen, Jeberg, Nevill	Jordin Sparks	0:42

The Fine Print

Les Mills' instructor resources (CDs, DVDs and choreography notes) are unique, valuable resources provided to you as a Les Mills' certified instructor to enable you to learn each new release and teach it in Les Mills' licensed clubs only. Do not share these resources. Copying, burning, uploading files onto the internet or selling Les Mills' instructor resources to other people is illegal, and rips off Les Mills, its distributors and other instructors. If you are engaging in any of these illegal activities, there may be serious consequences for you personally including legal action, the suspension or permanent withdrawal of your Les Mills certification. Your cooperation is much appreciated.

1 WARMUP

Hey, Soul Sister > 3:34 mins

Track Focus: To connect the class to their core muscles and bring awareness to how we engage these muscles.

	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:07	_ Hey	2x8	Lie on floor, feet close to butt, hip-distance apart	16	
0:17	Lipstick	4x8	A Single Leg Lift L&R	8	4x
0:36	Sweet	4x8	A ¹ Scissor Leg Lift L&R	4	8x
0:56	Hey soul	6x8	B 2-Stage Crunch, hands on thighs	8	6x
1:26	Just in	4x8	A ¹ Scissor Leg Lift L&R	4	8x
1:46	I'm so	4x8	A ² Scissor Leg Lift L&R, elbow to opposite knee	4	8x
2:05	Hey soul	4x8	B 2-Stage Crunch, hands on thighs	8	4x
2:25	_ The way	4x8	C Bridge	8	4x
2:45	Hey soul	6x8	B 2-Stage Crunch, hands on thighs	8	6x
3:15	Tonight	4x8	A ² Scissor Leg Lift L&R, elbow to opposite knee	4	8x
3:35	Tonight	½x8	Hands on thighs – slide hands down	4	

Initial Setup

- Lie side-on to stage
- Feet close to butt, hands by sides, palms facing up

SINGLE LEG LIFT

Setup

- Front knee lifts over hip and down. Alternate legs



Follow-up

- Make sure your belly is drawn in gently
- Abs squeeze tightly
- Keep lower back towards the floor in all leg lifts and lowers

SCISSOR LEG LIFT

Setup

- Front leg lifts and then alternate with the back leg as it lowers
- Point feet

Follow-up 1

- Keep shoulders relaxed
- Press lower back towards the floor
- Lightly touch toes to the floor

Follow-up 2

- Make sure your lower back stays down towards the floor
- Belly in, abs braced tightly

2-STAGE CRUNCH

Setup 1

- Both feet down
- Hands on thighs
- Crunch halfway up and hold
- Pulse to the top of your knees and come down
- Slide your lower ribs toward your hips



Setup 2

- Hands to thighs

Follow-up 1

- Tuck chin gently towards throat to crunch up
- Breathe out forcefully to curl up, inhale to lower down

Follow-up 2

- Remember to tuck in your chin
- How high can you get your shoulders off the floor?

SCISSOR LEG LIFT, ELBOW TO OPPOSITE KNEE

Setup

- Fingertips to temples
- Opposite shoulder to opposite knee
- Alternate with other side



Follow-up 1

- Try to keep elbows off the floor
- Keep breathing
- Look just outside of the thigh as you twist
- We are warming the obliques

Follow-up 2

- Spread elbows wide and aim center of chest to outer thigh to work obliques
- Keep shoulders and elbows off the floor
- Breathe

BRIDGE

Setup

- Squeeze your butt and peel hips, lower back and mid back off floor



Follow-up

- Roll down through the spine
- Feel the strength in your lower back and butt

WHY?

Single Leg Lifts provide an introduction to lower abdominal training – keeping the back toward the floor against the pull of the hip muscles.

Crunches bring awareness to the upper abs as they pull the ribs to the pelvis. We then add a **Twist** component to bring in the obliques.

Coaching **breathing control** is a key component here and helps set up technique for the rest of the class.

Track Focus: To increase the challenge on the lower and upper abs and to begin activating the muscular slings.

	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:00	(Beat)	8x8	A Set up Hover on knees	64	
0:36	_ Oh	8x8	A ¹ Hover on toes	64	
0:59	Oh oh	2x8	Roll on to back	16	
1:06	_ Well	8x8	B Leg Extension Sequence L		
			Extend L leg out	2	
			Extend R leg out	2	
			Bring L knee in	2	
			Bring R knee in	2	8x
1:36	Baby	8x8	B ¹ Double Leg Extension	8	8x
2:06	_ Oh	4x8	A ¹ Set up Hover on toes	32	
2:20	_ I despise	12x8	A ² Hover Sequence L&R		
			L arm straight F	4	
			L arm straight to the side 90°	4	
			L arm straight by thigh	4	
			Return to start	4	
			Repeat R arm	16	3x
3:05	Baby	6x8	A ³ Straight Arm Circle L&R	16	3x
3:27	Baby	2x8	Roll on to back	16	
3:35	Oh oh	8x8	B Leg Extension Sequence R	8	8x
4:04	_ Oh oh	8x8	B ¹ Double Leg Extension	8	8x
4:34	Oh oh	4x8	A ¹ Set up Hover on knees	32	
4:49	Oh oh	12x8	A ³ Hover Sequence with Leg Lift L&R	32	3x
5:33	Oh oh	4x8	A ¹ Hover	32	

Initial Setup

- Start on your knees
- Elbows under shoulders
- Knees slightly wider than hips. Toes tucked under
- Gently lift your belly towards spine and then squeeze mid section tightly

- Slide shoulder blades down back. Tuck in chin so neck is long

Follow-up

- If you feel fatigued in your lower back, drop to your knees

HOVER

Setup

- Lift your knees off the floor. Push down into your forearms to lift the chest. Lift kneecaps up to tighten your quads.

Option: On your knees

Follow-up 1

- Brace your abs and lengthen your spine

Follow-up 2

- Is your back flat? Don't sag or lift your hips. Stay parallel to the floor
- Abs in and braced, time for a challenge

Follow-up 3

- Hold for 15 seconds more!
- Squeeze everything as hard as you can!

HOVER SEQUENCE

Setup 1 – Arms only

- Left arm reaches straight forward, thumb up, straight to side, arm to thigh, back to start. Repeat on other side



Setup 2 – Arms and Legs

- Arm straight forward, opposite leg lifted
- Arm to side, thigh, then back to start
- Other arm, other leg



Follow-up 1

- Don't twist through your upper body
- Shoulders and hips level to the floor. If you can not keep them level, drop back to your knees
- Push forearms into the floor to lift the chest
- Chin in to keep back of neck long

Follow-up 2

- Hold with everything you've got!
- Even if you are on your knees, try lifting the leg
- Keep breathing

LEG EXTENSION SEQUENCE

Setup

- Knees above hips, shins parallel to floor
- Extend front leg out, back leg out, front leg in, back leg in
- Out, out, in, in

Follow-up 1

- If your lower back is lifting off the floor, keep your knees bent or don't extend as far

Follow-up 2

- Your abs are starting to fatigue. Adjust your leg range so your back is still staying toward the floor



DOUBLE LEG EXTENSION

Setup

- Extend both legs out and in

Follow-up 1

- If you're finding it easy to control your back position, take your legs out a little lower to increase the challenge

Follow-up 2

- Hold tightly. Keep breathing. This is great ab training and the last few reps really count!



WHY? We extend the demands of Track 1 by **increasing the leverage on the working muscles** – extending the legs to increase the pull on the lower back so that the lower abs have to work harder to keep the back toward the floor.

Hovers activate the muscles connecting the arms and legs (slings). When these muscles fire we have a 3D demand on the trunk stabilizers. Lifting an arm or leg from the Hover position increases the demands on sling activation as we reduce the base of support.

3

STANDING STRENGTH 1

My Prerogative > 4:48 mins

Track Focus: To train the gluteals, abs and sling muscles in standing and to improve awareness of how these muscles function in daily activities.

4:15	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:00	(Drums)	4x8	Set up LES MILLS™ Tube under L foot, handles crossed	32	
0:19	Everybody	4x8	A Lunge with Twist L L hand to thigh, R hand to hip	8	4x
0:36	Crazy	8x8	B Lunge with Bow & Arrow L leg, R arm	8	8x
1:11	Everybody	8x8	B ¹ Lunge with Bow & Arrow L leg R arm, R leg off floor	8	8x
1:46	Don't get	3x8	C Twist Balance L leg	24	
1:59	_ I see	1x8	Set up other side	8	
2:03	Everybody	4x8	A Lunge with Twist R R hand to thigh, L hand to hip	8	4x
2:21	Prerogative	8x8	B Lunge with Bow & Arrow R leg, L arm	8	8x
2:55	Oohh	8x8	B ¹ Lunge with Bow & Arrow R leg L arm, L leg off floor	8	8x
3:30	Everybody	4x8	C Twist Balance	16	2x
3:47	Everybody	3x8	D Aeroplane Balance	24	
4:05	(Instr)	3x8	E Cross Body Balance	24	
4:15		3x8	D Aeroplane Balance	24	
4:26		3x8	E Cross Body Balance	24	

Initial Setup

- Angle body toward right-front corner
- Feet under hips
- LES MILLS™ Tube under right foot, cross tubing over

- Take long step back with left leg. Lower to Lunge position, right hand to right thigh, left hand to hip
- Body upright, pull belly in and brace abs

LUNGE WITH TWIST

Setup

- Stand up, pivoting on back foot so your hip and shoulder open
- Back knee turns out
- Return to start



Follow-up 1

- Front knee stays aligned to the middle of the foot
- Front thigh parallel to the floor as you come into the lunge
- Body upright

Follow-up 2

- Come back to upright Lunge position
- Abs in and braced

LUNGE WITH BOW & ARROW

Setup

- Both hands reach forward with tension on the LES MILLS™ Tube
- Pull the right hand across the chest to right shoulder with palm facing chest. Return to start.



Follow-up 1

- Feel your shoulder blade roll around your ribcage so your chest opens as you pull
- Keep tension on front resistance tube by lifting and pushing the handle away from you
- Abs in and braced
- Imagine you have a bow and arrow as you pull

Follow-up 2

- Keep front arm straight and lifted
- Front knee aligned to mid foot
- Keep handle close to your chest as you pull back
- Slide shoulder blade towards spine as you row to get back muscles working
- Can you feel your chest open?

LUNGE WITH BOW & ARROW, LEG OFF FLOOR

Setup

- Push off the back foot and lift your back leg as you row
- Return to Lunge



Follow-up 1

- Keep front knee aligned with your foot so lateral hip muscles stay strong
- Keep abs in and braced for stability

Follow-up 2

- Strong in the supporting leg
- Feel your left glute work with your right upper back muscles
- It's OK to touch back foot down if needed
- Keep chest lifted forward as you lift back leg
- Bend deep into lunge so front thigh is parallel to the floor

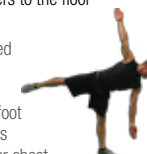
TWIST BALANCE

Setup

- Hold resistance tube in front hand
- Push off back foot, lift back leg
- Top arm opens up straight to the ceiling
- Bottom arm lowers to the floor

Follow-up 1

- Shoulders stacked
- Hips stacked
- Keep breathing
- Point your back foot
- Spread your arms wide to open your chest



AEROPLANE BALANCE

Setup

- Turn shoulders towards the floor so they are level

Follow-up

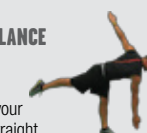
- Hips level to the floor, arms straight out to the side
- Back leg stays straight and lifted
- Feel your belly lift and abs brace to help you balance



CROSS BODY BALANCE

Setup

- Take your left shoulder towards your right knee, arms straight



Follow-up

- Keep back leg lifted and straight
- Breathe

WHY?

Standing brings a functional element to core training. We focus on gluteal engagement to control the pelvis and hips and layer in sling activation as we feel the connection between the hip and shoulder muscles through the trunk. Your participants will feel this with the strong Rows and Hip Extensions in this track.

4

STANDING STRENGTH 2

More > 3:52 mins

Track Focus: To increase the demands on the gluteals during squat and hip pulse patterns.

	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:00	(Instr)	4x8	Set up LES MILLS™ Tube	32	
0:16	dance	4x8	A Step Side Out L Step Side In L	2 2	8x
0:32	Patiently	4x8	B 4x Squat Pulse Side Leg Lift L	6 2	4x
0:48	More	8x8	C Double Squat Pulse Side Leg Lift L Double Squat Pulse Side Leg Lift R	2 2 2 2	8x
1:20	Hands	4x8	A Step Side Out R Step Side In R	2 2	8x
1:37	Patiently	4x8	B 4x Squat Pulse Side Leg Lift R	6 2	4x
1:53	More	8x8	C Double Squat Pulse Side Leg Lift R Double Squat Pulse Side Leg Lift L	2 2 2 2	8x
2:25	_ Ohhh	4x8	D Squat	8	4x
2:41	_ Ohhh	4x8	D ¹ Squat with Row	8	4x
2:57	More	8x8	C Double Squat Pulse Side Leg Lift L Double Squat Pulse Side Leg Lift R	2 2 2 2	8x
3:30	_ Ohhh	4x8	D ¹ Squat with Row	8	4x

Initial Setup

- Stand on the tubing with feet under hips, toes forward
- Pull handles to hips or cross them for more resistance

**Follow-up**

- Knees soft
- Draw belly in gently
- Brace abs
- Chest lifted, shoulders away from ears

STEP SIDE OUT**Setup**

- Step right leg out to side and back in
- Step left leg to side

Follow-up 1

- Keep knees slightly bent and abs braced

Follow-up 2

- Reset your posture, abs braced tightly, shoulders away from ears and lift your chest proudly

SQUAT PULSE WITH SIDE LEG LIFT**Setup**

- Four Squat Pulses, lift right leg out to side

Follow-up 1

- Keep toes facing front
- Weight in the heels as your butt goes back and down
- Drive through the heels to stand up

Follow-up 2

- Stay low in the Squat Pulse
- Chest lifted

Follow-up 3

- If you want more intensity, come deeper
- Hips just above knees
- Keep your knees wide, in line with toes

**DOUBLE SQUAT PULSE WITH SIDE LEG LIFT****Setup**

- Double pulse and right leg lift and then repeat other side

Follow-up 1

- Slide your hips across to avoid leaning to the side and lifting the hip
- Push the tube away as you lift, keeping your foot flexed
- Squat a little deeper to work the legs

Follow-up 2

- Check the middle of your knee aligns to the middle of the foot
- Squeeze butt as you Side Leg Lift
- The wider your feet the more tension on the tube

Follow-up 3

- If you want more intensity, come deeper
- Hips just above knees
- Keep your knees out

SQUAT**Setup**

- Push hips back and down, return to standing

Follow-up

- Keep chest lifted
- Breathe
- Abs in and braced

SQUAT WITH ROW**Setup**

- Pull elbows wide as you squat

Follow-up 1

- Hands pull up side of body
- Elbows to shoulder height

Follow-up 2

- Chest up
- Shoulders away from ears
- Hands to lower chest

**WHY?**

Hip control is a key component of core training. This is how our trunk muscles help to control our legs during weight-bearing activities. In this track we focus on the side glutes with the Side Leg Lifts and hip strength during the Squats. Once again we fire up the sling mechanisms when we combine the Squats with the Rows.

5 CORE STRENGTH 2

Closer > 5:54 mins

Track Focus: To train the obliques in three patterns of movement: Lying Twists, Side Hovers and Mountain Climbers in a Plank position. This is Superset Core training.

	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:00	_ Turn the	4x8	Set up Side Lying position	32	
0:14	_ Turn the	4x8	A 2/2 Oblique Crunch	8	4x
0:29	Own me	4x8	A ¹ 1/3 Oblique Crunch	8	4x
0:44	Just can't	8x8	A ² Single Oblique Crunch – hold the last one up	4	16x
1:14	_ I can	4x8	Set up for Side Hover	32	
1:28	_ She	4x8	B Side Hover	32	
1:42	Just can't	8x8	B ¹ Side Hover Pulse Lift	4	16x
2:12	Stop	2x8	B Side Hover	16	
2:19	_ And I	2x8	Set up Side Lying position	16	
2:27	_ Turn the	32x8	A REPEAT BLOCK ABOVE on other side		
4:32	_ I just	2x8	Set up for Cross Over Mountain Climber	16	
4:39	_ I just	8x8	C Cross Over Mountain Climber L&R slow	16	4x
5:08	Just can't	8x8	C ¹ Cross Over Mountain Climber L&R fast	8	8x

WHY? Supersetting the obliques creates a huge functional training benefit. All athletic activities require rotation control and we provide that by training the obliques in this sequence. The Side Hovers and Mountain Climbers continue to stress the arms and legs, producing muscle integration with isolated work in the Oblique Crunch.

Initial Setup

- Lie down on left side, facing stage
- Knees and hips at right angles
- Left arm out straight, aligned with shoulder
- Open chest to ceiling
- Right-hand fingertips to temple

OPTIONS

- Both hands to temples on setup
- Opposite hand reaches down rather than fingertips to temples



OBLIQUE CRUNCH

2/2

Setup

- Take right shoulder towards hip
- Open chest to ceiling to lower

Follow-up 1

- Keep chin tucked in gently
- Roll off bottom shoulder (if arm out along floor)
- Avoid pulling on your head
- Slide ribs towards hip as you curl up and squeeze at the top

Follow-up 2

- How close can you get your upper ribs toward your hip?
- Keep breathing

1/3

Setup

- Quick up, slow down

Follow-up 1

- Hold at the top, resist on the way down

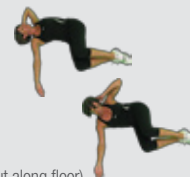
1/1

Setup

- All the way up, halfway down
- Keep eyes and chest facing stage

Follow-up 1

- Small controlled movements
- Keep breathing



SIDE HOVER

Setup

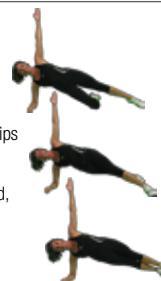
- Lift arm up in air
- Straighten legs and swing around on your hip
- Right elbow under shoulder and lift hips
- **Option 1:** Bottom leg bent, top leg straight
- **Option 2:** Legs split – top leg forward, front leg back
- **Option 3:** Feet stacked
- Lift top arm to ceiling

Follow-up 1

- Press down through forearm so you do not collapse into shoulder
- If you are collapsing in the shoulder, drop back to your knees or do the easier option

Follow-up 2

- Lift the waist high to strengthen your oblique
- Top arm reaches to ceiling – to open chest
- Keep neck aligned with trunk



SIDE HOVER PULSE LIFT

Setup

- Lift waist higher then come back to center

Follow-up 1

- Drop down to knees if your shoulder or neck is uncomfortable
- Abs braced tightly
- Head stays aligned with trunk

Follow-up 2

- Press down through forearm to stay lifted out of shoulder – if you collapse, take the easier option
- This is great training for your obliques and shoulder girdle

CROSS OVER MOUNTAIN CLIMBER

Setup

- New move side-on to stage
- Hands under shoulders, feet together
- Take right knee to left elbow and back. Change sides



Follow-up

- The only thing that moves is the knee to elbow with a twist at the waist
- Keep abs lifted and braced for spine stability
- Hips should be a little lower than shoulder height
- Drop to knees if you feel this in your back (you can always come back up)



- Shoulders stay level to the floor
- Feel the obliques as the knee comes in
- Try to touch knee to elbow to accentuate the contraction. **Option:** Take hands wider to give your knees further to travel
- Breathe!

Track Focus: To bring the focus to the back muscles and to improve trunk extension.

	MUSIC		SEQUENCE/EXERCISE	CTS	REPS
0:00	(Footsteps)	2x8	Set up LES MILLST TM Tube	16	
0:11	_ Hurry	4x8	A Rear Leg Extension L leg	8	4x
0:30	Wanna	4x8	A ¹ Horse Stance Pointer, L leg, R arm	8	4x
0:49	One step	5x8	A ² Horse Stance Pointer Sequence L Horse Stance Pointer Horse Stance Pointer – diagonal Horse Stance Pointer Horse Stance Pointer – diagonal Back to start	8 8 8 8 8	
1:08	Time	2x8	Change sides. Tubing to R hand	8	2x
1:17	_ You	4x8	A Rear Leg Extension R leg	8	4x
1:36	Wanna	4x8	A ¹ Horse Stance Pointer, R leg L arm	8	4x
1:55	One step	4x8	A ² Horse Stance Pointer Sequence R	32	
2:14	_ When	3x8	B Childs Pose	24	
2:28	Only way	1x8	Lie on belly	8	
2:32	Time	2x8	C Upper Body Extension	16	
2:42	One step	2x8	C ¹ Upper Body Extension, L arm F&B	16	
2:51	_ It's	2x8	C ¹ Upper Body Extension, R arm F&B	16	
3:01	One step	4x8	C ² Upper Body Extension, both arms F&B	16	2x
3:24	One step	3x8	B Childs Pose	24	
3:38	Find the	1x8	Come to sitting, both legs F	8	
3:43	One step	4x8	D Seated Single Leg Release L&R	32	
4:01	Time	½x8	Legs crossed, chest lifted	4	

Initial Setup

- Have a seat and set up LES MILLSTTM Tube with handles under feet
- Kneeling side-on to the stage with tubing under left palm and around left thumb
- Hands under shoulders
- Knees under hips

Follow-up

- Back flat like a tabletop
- Belly gently lifted and abs braced



REAR LEG EXTENSION

Setup

- Leg extends straight out and in



Follow-up 1

- Lengthen the leg away, parallel to the floor

Follow-up 2

- If you feel this in your lower back, you maybe lifting your leg too high

HORSE STANCE POINTER

Setup with Leg Extension

- Extend the opposite arm forward, thumb up
- Return to start



Follow-up 1

- Keep back flat like a tabletop and belly braced
- Keep abs braced so pelvis does not twist
- Eyes look down, aligned with fingertips

HORSE STANCE POINTER SEQUENCE

Setup

- Slow it down
- Take arm and leg to the diagonal
- Come back to the center. Repeat



Follow-up 1

- Feel your core having to work harder as the arm and leg move outwards
- This is great strength work for your shoulder girdle and core stabilizers

Follow-up 2

- Imagine you have a wine glass on each hip and shoulder and as you move you have to try and balance them. So only the arm and leg move
- Brace your abs tighter to stabilize your spine

CHILDS POSE

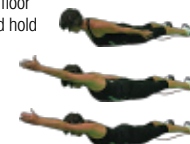
Setup

- Hands under shoulders
- Push back into Childs Pose

UPPER BODY EXTENSION

With one arm forward and back Setup

- Squeeze butt, feet on floor
- Hands reach back and hold thighs or butt
- Lift chest off floor
- Eyes look down so back of neck is long



Follow-up

- Take right arm forward
- Thumbs up, slowly back
- Change sides

With both arms forward and back

- Take both arms forward and back
- Keep trying to lift the chest off the floor
- Keep squeezing the glutes

SEATED SINGLE LEG RELEASE

Setup

- Sit up
- Bend right leg bent over left
- Twist chest toward thigh

Follow-up

- Chest lifted to ceiling so spine is straight
- Change to opposite side

WHY?

Horse Stance exercises are a great way to challenge extension control. Adding tubing to this position creates another dimension to this type of training. We brace and stabilize the trunk as we extend the hip and back. We then bring the focus to the muscles of the upper back as we drop to the floor and focus on chest lifts and scapula control as we extend the arms. This is great postural training.

THE SPORTS-INSPIRED CORE WORKOUT

WHY DO WE CONSIDER THIS PROGRAM TO BE **SPORTS INSPIRED?**

Because there is nothing you can do athletically without a good foundation of core strength. The core is our powerhouse.

For instance, did you know that 54% of power generated in a tennis serve comes from the trunk and legs? ¹

Every powerful movement you see in sport and in life will involve driving up out of the legs and using that momentum to generate speed and strength into the arms.

This simply doesn't work if you buckle in the middle, which means that our functional ability is only ever as good as our core.

Not only do we need core strength to function but it is estimated that eight in ten people will suffer from lower back pain at some point in their life that will make them seek treatment.² A lot of these problems are thought to be caused through lack of muscular strength of the support mechanisms that stabilize our spine.

A spine stripped of muscle with only ligaments and discs to support it will buckle with only 4.5 lb (2 kg) of load.³ Muscles are vital to protect the spine – so it is no wonder that when we see weakness of these key stabilizers, usually as a result of sedentary life styles, the incidence of lower back pain starts to rise at an alarming rate.

This program is therefore designed to create functional strength and enhance some of the key muscular systems that stabilize the spine to improve our posture and protect us from injury.

SO HOW DO WE ACHIEVE THIS IN OUR **CXWORX™** PROGRAM?

We can split the exercises into two groups – isolated and integrated.

You will see some of the traditional Crunches, Oblique Twists, Back Extensions and Bridges that isolate load in the individual muscles that make up our core.

Other exercises combine these muscles with upper and lower limb strength to produce our integrated exercises.

As we said, all functional movements require integrated strength between the muscles of our core and our arms and legs. Something as simple as walking, where we swing our opposite arm forward with our leg, utilizes this system.

These links between the muscles of the limbs and core are known as sling mechanisms. There are slings across the front linking muscles such as the pec major and serratus anterior of the upper limb with the external oblique and down into our hip muscles in the lower limb. A posterior sling around the back of the trunk connects the latissimus dorsi on one side with the connective tissue of the lumbar spine and the gluteus maximus on the opposite side.

There are also side slings and longitudinal posterior slings.

The integrated exercises in the program in the standing tracks, including Woodchops, Lunges and Squats, and floor exercises such as Hovers, load these sling mechanisms and deliver athletic strength and movement control.

In fact, research performed by Dr Jinger Gottschall at Penn State University showed exactly this.⁴

Dr Gottschall placed EMG electrodes on abdominal, hip, back and shoulder muscles and monitored activity in these muscles while participants performed the CXWORX™ program.

The results showed that exercises which integrate the upper and lower limbs with the muscles of the core, such as we see with a Hover, replicate the muscle recruitment patterns that we see with activities such as walking.

When you walk, your core fires in a 3D pattern – the muscles at the front, back and sides of our core coordinate their contraction to stabilize our trunk as we drive ourselves forward. This means that exercises which replicate this type of recruitment pattern provide us with the best type of functional strength.

There has been some criticism that core conditioning programs don't have enough functional carry-over to influence the way we stabilize our spine in life and during athletic activities.⁵



This research demonstrates that this is clearly not the case with the CXWORX™ program.

The integrated patterns we use in most tracks and the fact that we include standing strength tracks using resistance tubing mean that we are delivering the best mix of exercises to improve core strength and improve lives.

The last area of core training we need to discuss is endurance.

The class is 30 minutes long with each of the six tracks having a different focus.

By the end of the workout we have covered every element of core strength and have fatigued the target muscles to enable them to become stronger and work for longer.

This has been highlighted as a key component to reducing the incidence of injury.⁷ The stabilizing muscles work for sustained periods to support our alignment during daily tasks and athletic movements.

The strength endurance effect of CXWORX™ allows us to deliver strength that can be sustained for as long as we need it.

We hope you enjoy this program and these releases as much as we enjoyed creating them.

We're happy to have you with us as we change the world one core at a time.

Bryce

1. Kibler W B. Biomechanical analysis of the shoulder during tennis activities, Clinics in Sports Medicine (14)1, pp 79-85 (1995)

2. Hoy D. Measuring the Global Burden of Lower Back Pain, Best Practice and Research Clinical Rheumatology 24, pp 155-165 (2010)

3. McGill S M. Low back exercises: Evidence for improving exercise regimens. Phys. Ther. 78: pp 754-765 (1998)

4. Gottschall Jinger S, Mills Jackie and Hastings Bryce. Core exercises that incorporate distal trunk muscles maximize primary trunk muscle activation. (2010)

5. Faries M. Core Training: Stabilizing the Confusion. National Strength and Conditioning Association Volume 29, Number 2, pp 10-25 (2007)

6. Akuthota V. Core strengthening. Arch. Phys. Med. Rehab. 85 (3 Suppl. 1): S86-S92 (2004)

7. McGill S M. Low back exercises: Evidence for improving exercise regimens. Phys. Ther. 78:754-765 (1998)