PLEASE READ THIS MANUAL CAREFULLY AND COMpletely BEFORE BEGINNING ANY TRAINING PROGRAM.

This manual contains important information to prevent injury and equipment damage. Please follow the instructions listed herein to ensure a safe, healthy, and effective experience with Core Stix.
An Exercise Safety Message from Originator Mike Kadar

Safety of the exercise equipment is crucial for performing all exercises properly and avoiding injury. The safety of the equipment is also crucial for the performance and health of one’s muscles, joints, tendons, and ligaments. Safety is one of the greatest benefits of Core Stix.

The Stix provide for constant progressive resistance that offers a safe and challenging workout for many people at many different fitness levels. One benefit is that you can slow down your workouts with controlled movements or make your workouts more dynamic with faster movements with any of the variety of different Core Stix resistance Stix without sacrificing the health of your muscles, joints, tendons, or ligaments. With each repetition on Core Stix, whether slow or fast, whether controlling or building momentum in your movement, your muscles are never compromised with any “kick back motion” that a free weight or cable machine might impart on you.

Also, there is no angular joint compromise with any of the movements you perform on Core Stix. Simply adjusting your, feet, hands, body, or any combination thereof can give you the proper anatomical angle to perform any exercise safely and effectively. Having your muscles and joints at the proper angle can decrease or eliminate pain through any movement. Exercises can be uncomfortable when performing the movements, due to the fatigue and burn in your muscles. But, exercise should never be painful. Most machines have a few
settings to adjust the angular displacement, but cannot permit a user to fine tune the body position and movement like Core Stix can. You are never locked into one position, whether sitting, kneeling, or standing. Core Stix allows your body to move freely rather than locking you into a preset position. This allows for natural movement of your body, creating less chance of pain or injury, while at the same time engaging and working your core in the most functional way possible.

We hope that using Core Stix will help you achieve all of your and your patients’ fitness goals safely and effectively, and provide the basis for a lifetime of good health!

Sincerely,

Mike Kadar.

*NHL Pittsburgh Penguins Strength Coach & Core Stix Originator*

**Important Warnings and Safety Information**

Please read this section carefully and completely before beginning any training program.

Misuse of the Core Stix equipment can result in damage to the equipment and/or serious bodily injury. It is therefore important to adhere to the safety and use guidelines contained in this Manual to prevent damage and injury. Please consult the User Manual for a complete list of warnings and safety information.

![60° MAX BEND ANGLE]

**NEVER BEND STIX MORE THAN 60° AND ENSURE STIX ARE FULLY ENGAGED IN HOLES AT ALL TIMES DURING USE TO PREVENT EQUIPMENT DAMAGE AND BODILY INJURY.**

Core Stix is not designed to work with any other equipment other than what has been supplied or approved by Core Stix. Do not use any other equipment with Core Stix other than what has been supplied or approved by Core Stix. Usage of unapproved equipment can result in damage, injury, and will void the warranty.
Important Warnings and Safety Information (cont.)

- The Core Stix board must be used on a flat, level, and well supported surface with 36 or more inches of clearance on all sides of the base. Bystanders should be 48 or more inches away from the base when in use.

- Always maintain proper balance during every exercise when using Core Stix.

- The Insert Pin for each of the Stix being used must be fully inserted in the desired hole of the Arc Support before any force is exerted on the Stix, and during the entire workout. Partial engagement of the Stix in the holes can cause personal injury and damage to the equipment.

Hand Positions

There are 8 body positions used throughout the Core Stix training materials. Abbreviations for each position are noted in bold type below the photos; these abbreviations are used in the exercise descriptions that follow.

The following are the three basic Hand Positions on the Stix:

- **Position 1**
  (top of the foam handle)

- **Position 2**
  (middle of the foam handle)

- **Position 3**
  (bottom of the foam handle)
Upper Body Exercises

**ARM CIRCLES**

**Starting Posture:** Feet parallel and narrow, hands at position 2.

**Action:** Begin by pulling the handles toward your chest. Then, in a circular motion, bring the handles out wide away from your side completing the circle back to the starting position. Reverse directions.

**BILATERAL EXTERNAL ROTATION**

**Starting Posture:** Knees soft, elbows bent 90° holding a rolled-up towel against your ribs, core engaged.

**Action:** Externally rotate arms as far as possible without letting the elbows float away from ribs. Do not drop towel.

**BILATERAL INTERNAL ROTATION**

**Starting Posture:** Knees soft, elbows bent to 90° and holding a rolled-up towel against ribs, core tight.

**Action:** Externally rotate arms as far as possible without letting the elbows float away from ribs. Do not drop towel.
Upper Body Exercises (cont.)

**ROW**

**Starting Posture:** Stand staggered stance, hands at position 1, core engaged, weight balanced between feet.

**Action:** Pull handles toward body with rowing motion. For wide row, place Stix in A4, squeezing scapulae at end of movement. For Standing Row with scapular stability, position Stix in C4 and keep Stix apart during motion.

**CHEST PRESS**

**Starting Posture:** With feet slightly staggered, hands in position 2, core engaged.

**Action:** Press Stix away from the body, with absolutely no body sway during exercise. If there is, reduce the resistance or move the user back a bit until they can control their core. *(Progression: unilateral either with opposite arm in contracted or relaxed position.)*

**PUSH - PULL**

**Starting Posture:** Left foot forward in a narrow staggered stance, hips straight forward, weight balanced between feet, shoulders and thoracic spine slightly rotated to the right. Hands at position 2.

**Action:** Simultaneously push the right and pull the left Stix, shoulders and thoracic spine rotate from right to left. *(Progression: C5/C4 for added scapular stability and thoracic rotation)* Adjust Stix and alternate sides.
Upper Body Exercises (cont.)

**SEATED ROW WITH SCAPULAR STABILIZATION**

Starting Posture:  Grab Stix at position 1. Keep them apart.

**Action:** With Stix apart (activate scapulae), pull handles toward body keeping chest out, core engaged, squeeze scapulae together.

**SEATED ROW**

Starting Posture:  Grab Stix at position 1.

**Action:** Keeping elbows in pull handles toward body keeping chest out, core tight.

**SEATED WIDE “W” ROW**

Starting Posture:  Grab Stix at position 1.

**Action:** Pitch slightly forward at hips, pull handles toward body leading elbows back and down (“into your back pockets”), core engaged, squeeze scapulae together. End in a W. Can also do in kneeling position.
Lower Body Exercises

**ASSISTED SQUAT**

Starting Posture: Stand feet parallel, knees soft, core engaged, and hands at position 1.

Action: Pull Stix slightly back at the start position. Using Stix as counter balance, sit back into a squat. Keep spine neutral, weight on heel. For users with lower grip strength, position Stix in B3 and have user face away from Arcs, pushing down on Stix for support.

**ASSISTED SPLIT SQUAT**

Starting Posture: Stand right foot in front of left. Rear foot can be positioned off board.

Action: Grab Stix firmly. Squat to a 90° bend using Stix for support. Weight is on heel of right leg, driving down with each rep. (Repeat on opposite leg)

Note: User must have adequate grip to do this exercise. (*Regression: For users with lower grip, insert Stix in B3, facing away from Arcs, hands gripping downward.*

**SQUAT**

Starting Posture: Feet parallel at #5, knees soft, core engaged, and hands at position 1.

Action: Squat down low by sitting down and back; low back may be slightly arched. Drive back up through heels to stand upright, keeping back neutral.
Lower Body Exercises (cont.)

**SPLIT SQUAT**

**Starting Posture:** Stand left foot in front, right foot behind.

**Action:** Squat down to 90°, bend each knee. Grab Stix and stand upright. Maintain tall posture, shoulders slightly retracted. Weight on heel of left leg, drive heel down into board each rep. (Repeat on opposite leg)

**SINGLE LEG HEEL TOUCHDOWN**

**Starting Posture:** Standing tall on left leg at back, extend right slightly in front of body, hands at position 2.

**Action:** Bend left knee into slight lunge/squat. Reach right heel forward & touch down to ground just off board. Stand up, tall at top of position, balancing on left leg.
Balance, Core, and Spinal Stability Exercises

DESCENDING STIX 1 FOOT STANDING/MARCHING/TOE TAPS/HEEL TOUCH

**Starting Posture:** Stand on 1 foot using Stix for balance. Hold Stix at a comfortable level.

**Action:** Stand on 1 foot using Stix for balance. Repeatedly touch toes of foot, or heel of foot, to platform, or alternate between toes and heel of foot, raising foot each time. Press down with your planted foot into the board for additional Gluteus Medius recruitment. For toe taps, can touch toe at various clock positions, from 12:00 through 6:00, returning to at rest position between each clock position. Progression: can use only one of the two Stix, or alternate planted foot, raising knee of moving leg, in marching motion.

MARCHING

**Starting Posture:** Grab Stix and squeeze together with hands in front of body.

**Action:** Slightly lean forward and alternate lifting each knee. Keep firing glute, quad, and calf of support leg to maintain stability.

STIR THE POT

**Starting Posture:** With feet parallel, knees soft, core engaged. Both hands grab at position 2 of one Stix and bring to sternum.

**Action:** Like stirring a pot, move hands/Stix in a circular motion. Reverse Directions. Switch sides.
Balance, Core, and Spinal Stability Exercises (cont.)

**CORE PRESS**

**Starting Posture:** With feet parallel, knees soft, core engaged. Both hands grab at position 2 of one Stix and bring to sternum.

**Action:** Keeping core tight and body balanced, press hands forward, so as to extend away from body, and back at sternum. Try to keep it in as straight a line as possible.

**LATERAL STEP OUT**

**Starting Posture:** With feet parallel, knees soft, core engaged. Both hands grab at position 2 of right Stix and bring to sternum.

**Action:** Keep core engaged & spine stable take a small step to left, hold for 1-2 seconds & return.

**STEP UP WITH PRESS**

**Starting Posture:** Place a step in front of Arcs. Put right foot on it using Stix for assistance.

**Action:** Step up onto the step with right foot. (If possible keep left foot elevated off the step to challenge balance). At top of movement press Stix forward. Make sure there is no movement/leaning in the body and that step is stable, slide resistant, and secure on the Board before use.
Balance, Core, and Spinal Stability Exercises (cont.)

**LYING KNEE 90° HOLD**

**Starting Posture:** Bend knees & hips in both legs to 90° & hold feet in elevated position.

**Action:** Arms straight, grab Stix & separate 12-16”. Press down toward Arcs to further activate core. Hold position.

**LYING KNEE 90° MARCHING**

**Starting Posture:** Bend knees and hips in legs 90° & hold feet in elevated position.

**Action:** With arms straight, separate Stix 12-16”. Press toward Arcs to further activate core. Maintain 90° bend & neutral spine, drop leg toward Arcs & tap ground. Return to start. Repeat with other foot.

**LYING KNEE 90° KICK OUT**

**Starting Posture:** Bend knees and hips in both legs to 90° and hold feet in elevated position. With arms straight, grab Stix & separate by 12-16”. Press down toward the Arcs to further activate core.

**Action:** With a neutral spine, extend right leg to 45°, hold left in position, maintain 90° bend. Return right leg to start position & alternate legs with continuous movement.
Exercises for Increasing Flexibility

**WIDE ARM CHEST STRETCH (STEP THROUGH)**

**Starting Posture:** Stand between Stix at #1. Hand position 2, thumbs up.

**Action:** With elbows soft, step forward with one foot; arms remain outstretched and back. Keep head neutral, core engaged. Repeat with hands on Far Grip (position 1) and again at Low Grip (Position 3). Flip hands over with thumbs down for bicep stretch.

**REAR DELTOID CROSSOVER STRETCH**

**Starting Posture:** Stand in a wide stance at #1. Right arm reaching across body, grab left Stix with thumb up.

**Action:** Lean body to the right simultaneously bending into the right knee and hold.

**SEATED PIRIFORMIS STRETCH**

**Starting Posture:** Seated on a ball or stool, hands at position 1.

**Action:** Cross right ankle over left knee then allow the Stix to pull you forward into the stretch. Hold 15-30 seconds.

**SEATED OBLIQUE/QL STRETCH**

**Starting Posture:** Facing the right side of the board, hands at position 1.

**Action:** Allow the Stix to pull you into a side stretch. Hold 15-30 seconds.
Exercises for Increasing Flexibility (cont.)

**SEATED CROSSED BENT OVER LAT STRETCH**

**Starting Posture:** Stand with a wide stance, arm’s length from Stix. Grab the left Stix with right hand and right Stix with the left hand.

**Action:** Hinge from hip, bend knees slightly. Back straight. Bend forward arms extended & head neutral.

**STANDING OVERHEAD TRICEPS STRETCH**

**Starting Posture:** In a standing position, right arm overhead, elbow bent fully.

**Action:** Grab one of the Stix with right hand, allowing the weight of the Stix to begin stretch of the right triceps. Place left hand behind the back and pull down lightly on Stix for further stretch. Hold 15-30 seconds.

**SEATED ADDUCTOR STRETCH**

**Starting Posture:** Seated on a ball or stool, hands at position 1.

**Action:** Legs spread wide, one leg straight with the opposite bent. Allow the Stix to pull you forward into the stretch. Hold 15-30 seconds.

**LUNGING HIP FLEXOR/GROIN STRETCH**

**Starting Posture:** Right foot on the board, left knee on/off end of the board (user height dependent).

**Action:** Grab Stix at comfortable level, allow Stix to pull body forward into a deep lunge. Hold 15-30 seconds.
Wellness/Group Ex Programming for Active Aging

There are three classes below for active aging/wellness, depending on functional ability. See descriptions for individual exercises above for more instructional information.

**Level 1:**
Appropriate for individuals with lower movement & functional abilities, including balance, and proprioception. Individuals should be able to squat under own body weight, has difficulty getting up from a seated position, a positive Trendelenburg sign, and minimal pain levels (no greater than 3-4) with exercise. **Suggested Class Length: 10-20 min.**

**Seated Exercises:** (can do unilaterally after week 8)
1) **Seated Row**
2) **Seated Wide “W” Row** (Stix in A3)
3) **Seated Press** (Stix in B3)
4) **Offset Hold** – similar to Standing Core Press, arms extended in front of body (no arm movement).

**Standing Exercises:**
1) **Descending Stix** - weight transfer: both feet in contact with platform, movements consist of shifting weight between heels and toes, between left and right foot, repeated heel lifts, and repeated toe lifts.
2) **Marching** – active foot can come off the platform, or raise heel only, as appropriate.
3) **Assisted Squats**

**Level 2:**
Appropriate for individuals with moderate movement and functional abilities, including moderate balance and proprioception. Individuals should be able to perform half squats, balance on one foot for 2+ seconds, have a moderate Trendelenburg sign, and have minimal to no pain (no greater than 1-2 with exercise). **Suggested Class Length: 20-30 min.**

**Balance & Lower Body Exercises:**
1) **Descending Stix** – Marching and/or Heel Touches/Toe Taps. For Heel Touches/Toe Taps, can progress from 12:00 through 6:00 (touching heel or toe at each position), returning to initial position between each clock position. (progression: single rod Marching or Toe Taps)
2) **Step Up with Press** (4 inch step)
3) **Assisted Split Squat**

**Upper Body & Core Strengthening Exercises:** (can do unilaterally)
1) **Standing Row**
2) **Standing Press**
3) **Standing Push Pull** (Stix in B3 & B4)
4) **Standing Stir the Pot**
5) **External Rotation**
6) **Shoulder Circles** (Stix in B4)
Wellness/Group Ex Programming for Active Aging (cont.)

Upper Body & Core Strengthening Exercises: (can do unilaterally)

1) Standing Row
2) Standing Press
3) Standing Push Pull (Stix in B3 & B4)
4) Standing Stir the Pot
5) External Rotation
6) Shoulder Circles (Stix in B4)

Level 3:
Appropriate for individuals with high movement and functional abilities, including good balance and proprioception. Individuals should be able to perform full squatting motion, get up from a kneeling position, balance on one foot for 5+ seconds, have minimal Trendelenburg’s sign, and no shoulder, lumbar or knee pain for the past 12 weeks. *Suggested Class Length: 30 min. or longer.*

Upper Body, Lower Body, & Core Strengthening Exercises (Standing):

Standing:

1) Standing Stir the Pot
2) Standing Core Press
3) Lateral Step Out
4) Marching
5) Standing Chest Press
6) Squat
7) Standing Row
8) Assisted Split Squat (Stix in A4)
9) External Rotation
10) Shoulder Circles
11) Standing Push-Pull
12) Chest Fly (Stix in A3)

Can do unilaterally for increased core loading and balance training.