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EVIDENCE-BASED EXERCISES
FOR BRAIN AND BODY

INTERMEDIATE PILATES FOR THE ABDOMINALS

This series of exercises incorporates breathing and abdominal hollowing to train the abdominal muscles and improve core stability. You should only move onto the next exercise in the series when you are confident you have the correct technique.

THE NATURAL CURVE IN YOUR LOWER BACK



When standing everyone has a curve in their lower back which is unique. As you lie down to perform these abdominal exercises it is important to maintain a slight curve rather than actively flattening your lower back into the floor or allowing it to arch away from the floor.

ABDOMINAL CONTRACTION

Step 1

Lie on your back with your knees bent and shoulders relaxed. You should maintain the natural curve in your lower back.

Step 2

Breathe into your stomach allowing your rib cage to expand sideways. Try not to use your neck muscles or let your upper chest rise.



Step 3

Breathe out and sink your lower abdominals without flattening your back. You should feel your abdominal muscles working.



Did you know your brain contains maps of your body and that each and every one of your muscles is connected to your brain via nerve pathways?

Repeat steps 2 and 3 ten times.

It has recently been discovered that the nerve cell connections in your brain can change over time – this is called neuroplasticity

ABDOMINAL CONTRACTION WITH LEGS IN CHAIR POSITION

Step 1

Chair position:

Lie on your back with your knees bent and shoulders relaxed. Move one leg at a time into the chair position with your hips and knees at 90 degrees. You should maintain the natural curve in your lower back.

For people with lower back pain the maps in the brain that represent the deep abdominal muscles have been found to be different to those without pain.

Step 2

Breathe into your stomach allowing your rib cage to expand sideways.



Step 3

Breathe out and sink your lower abdominals without flattening your back.



Repeat steps 2 and 3 ten times.

Due to neuroplasticity faulty maps can be changed by learning abdominal exercises.

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ARM MOVEMENTS WITH LEGS IN CHAIR POSITION

Step 1

Start in the chair position (see previous exercise).



When you learn abdominal exercises you're not just changing your body – you're also changing your brain!

Step 2

Move your arms so that your fingers point to the ceiling.



Step 4

Breathe out and sink your lower abdominals without flattening your back. As you do this, slowly move your arms above your head.



Step 3

Breathe into your stomach allowing your rib cage to expand sideways.

Step 5

Breathe in and slowly return your arms to the step 1 position.

Repeat steps 2 to 4 ten times.

OPPOSITE ARM AND LEG MOVEMENTS

Step 1

Start in the chair position (see previous exercise) with your fingers pointing to the ceiling).



Step 2

Breathe into your stomach allowing your rib cage to expand sideways.

Step 3

Breathe out and sink your lower abdominals without flattening your back. As you do this, slowly move one arm above your head and straighten the opposite leg towards the ceiling.



Step 4

Breathe in and slowly return to the step 1 position.

Repeat steps 2 to 4 five times on each side.

TOE DIPS

Step 1

Start in the chair position.



Step 2

Breathe into your stomach allowing your rib cage to expand sideways.

Step 3

Breathe out and sink your lower abdominals without flattening your back. As you do this, slowly lower one leg so that your toe almost touches the ground. Keep your knee at 90 degrees.



Step 4

Breathe in and slowly return your leg to step 1 position.

Repeat steps 2 to 4 five times on each side.