

Why does my back hurt after Burpees?

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Burpees are a mainstay of [circuit routines](#) worldwide.

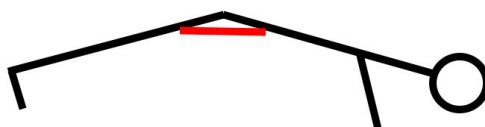
They require the use of a large number of muscles and create a high aerobic/anaerobic demand on anyone who attempts them.

There are dozens of variations that challenge the body in slightly different ways to that of the traditional/standard burpee shown above.

One very regular comment I hear from clients after completing this exercise is that their lower back is sore (up to 24-48 hours post exercise). This article explains what is occurring here that is most likely causing this lower back discomfort.



The part of the burpee movement that causes the most stress/strain on the lower back is when the client goes from the squat down position into the pushup position (either then doing a pushup or staying in this extended arm pushup position as shown).



Iliopsoas muscles in red

It is during this dynamic body extension movement that there is considerable stress/strain placed on the core.

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The key muscle group keeping the hips from collapsing during this phase of the movement is the iliopsoas muscle group, it attaches from the femur to the pelvis/lumbar spine (highlighted in red).

Two technical faults can happen during this part of the exercise that will place pressure on your lower back:

1. Your core is unable to stabilise your pelvis/lumbar spine and the iliopsoas will contract strongly to try to keep your hips high resulting in the rapid movement of your pelvis into an anterior pelvic tilt resulting in an overloading of your lumbar spine.
2. Your core/iliopsoas combination are unable to hold your mid-section (pelvis/lumbar spine) in a neutral position causing you to “sag” in the middle as you jump your legs out – this movement will cause a rapid lumbar extension (combined with a anterior pelvic tilt) will create both shearing increased load forces throughout your lumbar vertebra region.



Poor shoulder & hip positions

HOW TO FIX THIS PROBLEM?

The key to performing this exercise well and reducing lower back pain can be achieved by focusing on three key aspects of the movement.

1. As you start to extend your body from the crouch into the pushup position, try to land in your pushup position with a slightly raised butt – this will limit any rapid lumbar extension.
2. Concurrently, you should focus on bracing your core as hard as you can just prior to your feet hitting the ground (this will assist in minimising any rapid anterior pelvic tilting and keeping any lumbar extension to a minimum).
3. Try to land into a pushup position with straight arms and strong chest/upper back position – if you are lazy through the upper body, this will transfer throughout your core making it more difficult to hold a solid position.

Finally, as fatigue sets in, technique will falter – it is very important that you slow down the movement at this time (rate of burpees) (it is the rapid loading of the lower back that is the hardest to control under fatigue).

At all times it should be the quality of the technique you are undertaking, not just how many you can do in a set time-frame.

For more information - check out my Youtube clip - [Burpees & The Hip Flexors](#).

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