

Wonders of **GOD'S** Creation

Tall Buildings in a Single Bound

In 2015, cornerback Byron Jones set the unofficial record for the standing broad jump, launching himself forward an incredible 12 feet, 3 inches—all *without* a running start.

That's impressive . . . unless you're a grasshopper.

God designed grasshoppers with the capacity to leap 10 times their own length vertically and 20 times their length horizontally. If people could jump like that, we could launch ourselves higher than five-story buildings and farther than the length of a blue whale *in a single standing jump*.

The secret to the grasshopper's incredible hang time? It's all in the knees. As the grasshopper contracts its flexor muscles, all that potential energy is stored in a springlike cuticle within the knee. When it releases those muscles, the cuticle spring launches the grasshopper into the air like a catapult.

During that jump, a grasshopper experiences around 20 times the force of gravity. A trained fighter pilot will only experience around 9 Gs—and even that is far more than a normal human can handle without passing out. Grasshoppers feel that force with *every jump*.

Pictured: Gray bird grasshopper (*Schistocerca nitens*)



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