
Subject: Re: If the earth stopped spinning suddenly...
Posted by [MexPirate](#) on Fri, 16 Feb 2007 18:48:52 GMT
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Renx wrote on Fri, 16 February 2007 12:41 We wouldn't be rooted to the earth by gravity. Right now the velocity of the Earth's rotation is 1600km/h at the equator, relative to the universe. We are also moving at 1600km/h relative to the universe, but 0km/h relative to the Earth (assuming we're all at rest). If the earth and only the Earth itself was to stop, as in suddenly be moving at 0km/h relative to the universe, we would keep moving at the same speed - 1600km/h relative to the universe. Gravity isn't going to prevent that, however it will still keep you on the earth.

the earth relative to the universe extends past the surface, the outer layer of the earth (in contact with the universe) is the exosphere hundreds of miles above the surface and still held in place by the earth's gravitational pull (<http://en.wikipedia.org/wiki/Exosphere>) we would simply act as part of the earth as if you put a sticker on a football, wrapped it in bubble wrap and then kicked it - the sticker isn't going to fly off although the outer layer may receive damage.
