Rumor has it that Russia gave birth to the world's first roller coasters in the 17th century, as specially constructed hills of ice were built in the area now known as St. Petersburg. These slides were built to a height of 70 to 80 feet and had a 50-degree drop, reinforced by wooden supports. As a result, the term Russian Mountains is still used to describe a roller coaster in many languages. Interestingly enough, however, the Russian term for roller coasters is американские горки («amerikanskiye gorki»), which means “American mountains.” Go figure.

The French were next on the scene with the first modern roller coaster in 1817, which featured wheeled cars securely locked to the track, and guide rails in place to stay on course. In 1887, the French founder of the Moulin Rouge musical hall constructed the “Russian Mountains of Belleville,” with 200 meters of track.

Closer to home, a mining company in Summit Hill, Pennsylvania, created a switchback railway to deliver coal in 1927. This downhill gravity railroad was used to deliver coal to the town now known as Jim Thorpe, Pennsylvania. By the 1850s, the “Gravity Road” as it became known was selling rides to thrill seekers. Amazing what a coal company would do on a down day to make a quick buck.

It was this concept that inspired LaMarcus Adna Thompson to create his own version of a switchback railway at Coney Island in Brooklyn in 1884. He obtained one of the first known patents for a roller coaster the following year. That same year, Philip Hinkle introduced the first full-circuit with a lift hill, The Gravity Pleasure Road, which soon became the most popular attraction at Coney Island. In a bit of competitive rivalry, the following year, Thompson patented his design of the roller coaster that included dark tunnels with painted scenery. Soon, “Scenic Railways” were found in amusement parks across the nation.

What's the big thrill all about?

Enjoying roller coasters is linked to “sensation seeking,” according to the story, “The Psychology of Roller Coasters,” which appeared in The Conversation. At first glance, the thought was that it was speed that was so compelling. But further research revealed that the draw of roller coasters is the visceral sensation of fear itself, much like watching a horror film. Physical signs of fear such as a pounding heart, faster breathing and an energy boost caused by glucose release are known collectively as “fight or flight.” By measuring the heart rates of riders on the double-corkscrew Coca-Cola

With summer safely in our rear-view mirror, we look back longingly at those carefree days of leisure time in the sun. You know, those moments where you voluntarily stand in line with hundreds of sweaty strangers all to share an experience that scares the living daylights out of you. Well, as always, that got us to thinking. What’s up with roller coasters? And why do we seek those thrills?
Roller in 1980s Glasgow, researchers learned that heart beats per minute more than doubled (from 70 to 153) shortly after the ride began.

A recent review looked at the role of dopamine, another chemical messenger substance in the brain that is important to the functioning of neurological reward pathways. This revealed that the people who have higher levels of dopamine also happen to score more highly on measures of sensation-seeking behavior. So maybe your desire for Disney is genetic, after all.

**How high can you go?**

While it may appear that the world is in a frenzy to design constantly faster, higher, twirlier coasters, there is some competition at the top. When it opened in 2005, Kingda Ka, at Six Flags Great Adventure, in Jackson, New Jersey, was the world’s fastest (at 128 mph) and tallest roller coaster. It doesn’t come close to the world’s longest roller coaster ride (in fact, at 50.6 seconds, it may be one of the shortest).

The longest ride is the Steel Dragon 2000 at Nagashima Spa Land. This is the only coaster in the world to break the 8,000 ft. mark (8,133 feet, to be specific), which takes riders on a terrifying four-minute journey, especially at speeds of up to 95 mph, the most for any non-launch coaster.

**What’s in store?**

There’s some debate about the future of coasters. After all, how much, higher, faster or longer could a ride be? Some believe the future lies in virtual reality. Consider, too, the idea of magnetic levitation technology that could combine a cushy ride with incredible speeds and free falls. Still some believe that the future lies in the narrative; what journey will scare the #$% out of riders?

Whatever it is, go for it, you sensation-seeker. We’ll be here on the bench holding your phone.