

Fun facts and folklore about the first day of fall

By Leah Wheeler

The first day of fall blends astronomy, history, and folklore. It is a day when the world's light and dark balance, ancient myths meet modern traditions, and the season's colors and customs take center stage.

Tuesday, September 22 marks the start of fall this year in the Northern Hemisphere. This year's autumnal equinox—also called the September equinox or the fall equinox—occurs at 8:05 p.m. EDT. On this date, day and night are nearly equal in length. The word equinox comes from Latin *aequus* ("equal") and *nox* ("night"), referring to the near equality of day and night

Historical and cultural folklore

- **Ancient Greece:** The equinox was tied to the myth of Persephone returning to the underworld, symbolizing the shortening of days
- **Maya civilization:** At Chichén Itzá, the Pyramid of Kukulkán's 365 steps aligned with the equinox, and the Maya still celebrate it with ceremonies
- **Japan:** Buddhists honor ancestors, as the sun sets in the west, the "land of the dead"
- **Spain:** The Sembradas parade in Soria features torches and costumes during the equinox

Seasonal traditions

- The full moon closest to the equinox is known as the harvest moon. It linked to the "first day of fall" and was historically used to help farmers work late into the night
- Labor Day was once considered the unofficial start of fall; an old rule said not to wear white after that date

Fall trivia

- Chlorophyll drops as daylight shortens, revealing reds, yellows, and oranges
- A rough U.S. estimate suggests 40 quadrillion leaves fall each year
- On the equinox, the sun rises and sets exactly east-west

Can Artificial Intelligence design the perfect smile?

Artificial intelligence seems to be everywhere. So, it should come as no surprise that artificial intelligence has also entered the world of cosmetic dentistry. Today, sophisticated digital technology can analyze a photograph of your face, evaluate the proportions of your teeth and even help create a proposed new smile in a matter of minutes. But can artificial intelligence really design the perfect smile?

AI is an amazing tool

Cosmetic dentistry has changed dramatically during my career. Digital photography, 3D scanning, computer-assisted design and digital smile simulations have given us capabilities that simply weren't available years ago. Artificial intelligence is taking those capabilities even further. AI can analyze facial symmetry, tooth dimensions, tooth position, smile width and other characteristics. It can help us visualize different possibilities and allow patients to become more involved in the design process, which is very exciting. But there is an important distinction that patients need to understand. AI can analyze a smile, but that doesn't mean it understands the person behind it.

There is no mathematical formula for the perfect smile

One of the misconceptions about cosmetic dentistry is that there is one definition of a perfect smile, but this isn't the case. We certainly use principles involving proportion, symmetry and tooth position when designing a smile. But if we simply applied the same mathematical formula to every patient, everyone's teeth would begin to look the same. And

that's not cosmetic dentistry. A beautiful smile on one person may look completely unnatural on someone else.

Age matters. Facial shape matters. Lip position matters. Skin tone matters. Personality matters. Even the way someone talks, smiles and expresses themselves can influence the way I envision their final smile. Sometimes a tiny imperfection is exactly what makes a smile look natural. The objective isn't necessarily perfection. The objective is harmony with the person's face and personality.

Technology doesn't replace conversation

Before I design someone's smile, one of the most important things we can do is listen and ask the right questions:

1. What bothers you about your smile?
2. What do you like about it?
3. Do you want people to immediately notice that you've changed your teeth, or would you rather hear, "You look great, what did you do?"

Some patients want a dramatic transformation. Others want something incredibly subtle. One patient may love bright, symmetrical teeth, while another may want more texture, translucency and a more natural look. AI can generate a proposed design but understanding what will make a particular patient feel confident when they look in the mirror still requires genuine communication.

A beautiful smile also has to function

Another part of cosmetic dentistry that a photo-

graph or computer simulation cannot tell us is about proper function. This becomes especially important in patients who have worn, chipped, fractured or shortened teeth. If someone's natural teeth have been damaged over the years, I want to understand why before simply making them beautiful again. How are the teeth coming together? How are forces being distributed? What are the jaw muscles doing? Is there evidence of an unstable bite? Are there TMJ related concerns? You can digitally design spectacular looking teeth, but if you place that dentistry into an unhealthy or destructive environment, you may be ignoring the reason the original teeth became damaged. That is why advanced cosmetic dentistry should never be only about appearance. The smile must be designed for both beauty and function.

The art of advanced cosmetic dentistry

Even with today's technology, creating natural-looking porcelain teeth requires artistry. Real teeth aren't simply white. They reflect and transmit light. They have depth, texture, translucency and subtle variations in color. Their edges and contours change as we age. This is where the collaboration between an experienced cosmetic dentist and a talented master ceramist becomes so important. Technology can help us communicate and plan with incredible precision, but ultimately someone still must make the artistic decisions that determine whether the final smile looks natural.



Dentally Speaking

by Jeffrey S. Haddad D.D.S.

Can AI Design the Perfect Smile?

I believe artificial intelligence is going to become an increasingly valuable part of dentistry. I'm excited about what technology allows us to do, and I believe we should embrace tools

that can make diagnosis, planning and communication better. But AI really is only a tool. It can calculate proportions. It can analyze symmetry. It can generate possibilities. But it cannot replace experience, clinical judgment, artistic vision or the relationship between a dentist and a patient.

I believe the best results will come from combining the precision of technology with the ability to listen, understand and create a smile specifically for the person sitting in front of us. Because the perfect smile isn't the one a computer says is perfect. The goal is to produce a smile that looks natural, functions properly and feels completely like you.

Jeffrey S. Haddad, DDS of Rochester Advanced Dentistry, completed his dental education at the University of Michigan in 2001. Dr. Haddad is a fellow of the prestigious Las Vegas Institute for Advanced Dental Studies. He lectures nationally on cosmetic dentistry, TMJ and sleep disorders and dental implants. For more information, visit www.rochesteradvanceddentistry.com.

Auburn Hills Fall Festival in the Woods is a hoot

The 28th annual Fall Festival in the Woods will feature horse-drawn carriage rides, a farm animal petting zoo, pumpkin carving and decorating, a pie-eating contest, live music by the Blue Water Ramblers, face painting, a scavenger hunt, fall crafts, and more. Attendees can enjoy cider



and donuts, hotdogs and chips, caramel apples, and take home a carved or decorated pumpkin. October 10, 11 a.m. to 2 p.m. at the Hawk Woods Park and Campground, 3799 Bald Mountain Road, Auburn Hills. Cost is \$5. Register online at www.auburnhills.org or at the AH Community Center.