

Flossing your teeth can save your heart

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USA TODAY NETWORK

I am retiring as a professor and just finished teaching my last class at Hanover College in Hanover, Indiana. We have a short spring term in which students take one class over four weeks. I've always enjoyed teaching my Nutrition class then because it's the only class students take – plus, I have a captive audience that affords me an unusual opportunity to try to inspire change.

When addressing students 18 to 20 years old, I hammer away on two themes:

- First, what they are eating regularly is already impacting their health, whether they know it or not. I tell them about autopsy studies performed on soldiers killed during the Korean and Vietnam wars in which they found atherosclerosis (clogging of the arteries) – even advanced atherosclerosis, in some cases – in the majority of these young men, whose average age was 21.

- Second, what they are doing today will largely dictate their health status 40 years from now, determining their risk of not only atherosclerotic heart disease, but also stroke, cancer, Type 2 diabetes, etc.

I spend a lot of time discussing the impact of inflammation because the more we learn about serious chronic diseases, the more we appreciate how inflammation plays a significant role.

Now, to be clear, I'm talking about "chronic" inflammation, because "acute" inflammation is actually meant to be helpful to the body. For example, an acute inflammatory response occurs when bad bacteria invade the body and the immune system's white blood cells go to war against the bacteria. This inflammatory response – which also includes increased delivery of nutrients, oxygen, and other resources – should be temporary, and when the illness is defeated or wound is healed, inflammation stops.

It's an entirely different story when inflammation becomes chronic, and this is now recognized as a key player in



Good oral health will help eliminate the risk of gum disease, which can negatively affect the heart. GETTY IMAGES

atherosclerosis (clogging of the arteries). When cholesterol and other agents from the bloodstream invade the arterial wall, they form plaques that can trigger inflammation. In turn, a vicious cycle develops as inflammation attracts more immune cells causing more inflammation that expands the plaques.

Eventually, over the years, plaques interfere with blood flow through the arteries, and at worse, blood flow may be stopped completely, causing a heart attack.

Can flossing your teeth prevent heart disease?

I always ask how many students floss daily. Typically, the answer is discouragingly low: In my latest class, only 10% flossed daily; a few flossed occasionally; and the rest either never flossed even once, or they tried it and

didn't like doing it, or they thought they were too busy to bother.

In this last class, I did something I had never done before. I brought floss to class, distributed it and assigned students to floss their teeth later and write about it. Their paper should address their flossing experience and family history of flossing, plus the academic aspects of how and why inflammation is harmful and how not flossing makes things worse. I warned them about inflammation of the gums (gingivitis), and told them that in those who do not floss regularly, the odds of gingivitis are incredibly high.

The results were perfectly predictable. Flossing resulted in pain in the gums and bleeding in every student who did not floss daily, indicating the presence of gingivitis. It was the perfect eye-opening experience, and the papers that were written attested to the

impact of that flossing experience in persuading students to change their ways.

Over the years, I have preached about these issues but inspired few converts. In the present group, however, bleeding gums screamed a vital message much more loudly and clearly than I ever had in the past.

The connection between gum and heart health

This experience opened the door for me to convincingly explain the connection between gum health and heart health. Gingivitis, a low-level gum infection typical among folks with poor dental hygiene, especially those who don't floss their teeth, continually bolsters the inflammatory response. In turn, increased immune cell activity can be harmful to the heart in at least two ways.

First, as mentioned above, the immune cells can accelerate clogging of the arteries with cholesterol-rich plaques – the underlying cause of the vast majority of heart attacks. Eventually, these plaques calcify, or "harden," and are cemented in place. They can be detected with a coronary calcium scan, or CCS, which measures the amount of calcium in the heart arteries and translates it into a score indicating the degree of calcified clogging material in the arteries.

Second, inflammation also greatly increases the risk of heart attack caused by newly formed, "mushy" plaque that has not yet calcified. Calcified plaque is cemented in place, whereas mushy plaque can be torn apart by a hyped immune system attack. This could result in the release of large chunks of ruptured plaque into the artery, which could clog it prematurely, causing a heart attack.

Gingivitis is an all-too-common source of chronic inflammation. The good news is flossing promotes the health of the gums and prevents gingivitis. Yes, we all are very busy, but there is no one who is so busy that they cannot devote a couple of minutes daily to this invaluable practice.

HAPPY BIRTHDAY

Author **Lawrence Block** turns 87. Singer-writer **Brigitte Fontaine**, 86. Actor-singer **Michele Lee**, 83. Drummer **Mick Fleetwood**, 78. Actor **Peter Weller**, 78. Actor **Iain Glen**, 64. Singer **Curt Smith** (Tears for Fears), 64. Singer **Hope Sandoval** (Mazzy Star), 59. Chef **Alexis Gauthier**, 52. Singer **Ariel Pink**, 47. Actor **Mindy Kaling**, 46. Model-TV host **Petra Nemcova**, 46. Actor **Minka Kelly**, 45. Singer **Solange Knowles**, 39.
– USA TODAY Network



Knowles

TODAY IN HISTORY

Today is Tuesday, June 24, the 175th day of 2025. There are 190 days left in the year. On this date in:

1833: Destined for an overhaul spurred by Oliver Wendell Holmes' 1830 poem, "Old Ironsides," the wooden-hulled heavy frigate USS Constitution became the first ship to enter the new dry dock at Charlestown Navy Yard near Boston.

1922: The National Football League became the new name for the former American Professional Football Association. Owners of over 20 teams met in Cleveland, where they also banned active college players from NFL teams.

1936: Mary McLeod Bethune, founder-president of Bethune-Cookman College, was named director of Negro affairs for the National Youth Administration. She was the first Black woman to receive a major appointment from the federal government. The educator held the post until Jan. 1, 1944.

1949: NBC aired the first western TV show, "Hopalong Cassidy," which featured actor William Boyd as Cassidy. Boyd, who also had played the character in feature films, bought the rights to the movies, which were edited to be 30-minute episodes for the first two seasons of the series. Boyd's company then made 40 new episodes specifically for TV that were the third and fourth seasons.

1989: Garth Brooks made his Grand Ole Opry debut about two months after the release of his self-titled first album. A year after his Opry debut, singer-comedian Johnny Russell inducted him into the Opry.

2004: The New York Court of Appeals ruled the death penalty to be unconstitutional within the state.

2007: Iraqi Gen. Ali Hassan al-Majid, aka "Chemical Ali," received his first

death sentence for genocidal crimes against humanity that included the use of chemical weapons. A cousin of the country's longtime dictator Saddam Hussein, al-Majid was hanged after a fourth trial and death sentence in 2010. Al-Majid carried out Hussein's orders that killed tens of thousands of Kurdish people in the 1980s and 1990s, with one estimate up to 100,000 in 1988 alone.

2020: Data from 300 of the largest U.S. cities found no evidence of a COVID-19 spike in the weeks after protests spurred by the deaths of George Floyd and Breonna Taylor started. Researchers found social distancing behaviors increased as people tried to avoid the protests.

2021: Nearly 100 people died when a 12-story condominium tower collapsed in Surfside, Florida, one of the worst building disasters in U.S. history.

2021: Dr. Rochelle Walensky, director of the U.S. Centers for Disease Control and Prevention, extended the federal eviction moratorium through July 31, 2021, to try to help slow the spread of COVID-19.

2022: The U.S. Supreme Court overturned Roe v. Wade and Planned Parenthood v. Casey with its ruling in the case of Dobbs v. Jackson Women's Health Organization, which stripped federal protections by concluding the Constitution doesn't grant abortion rights and returned the regulation of the procedure to elected federal and state government leaders.

2022: The U.S. Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices recommended Moderna's COVID-19 vaccine for everyone ages 6-17 years.
– Charlie White, USA TODAY Network

CATCH A CLASSIC

Journey Into Fear

TCM, 4:15 p.m.

Frequent creative collaborators Joseph Cotten and Orson Welles star in this 1943 spy thriller/film noir that they cowrote (adapting Eric Ambler's novel of the same name). Welles also produced the film and had originally been slated to direct, but his work on **The Magnificent Ambersons** precluded him from doing so. So he put the task in the capable hands of Norman Foster, who had earlier directed a number of entries in the **Charlie Chan** and **Mr. Moto** mystery film franchises (it also seems likely that Welles did make some contributions to the direction). The cast of **Journey Into Fear** also includes Dolores del Rio as well as a number of familiar faces from Welles' famed Mercury Theatre/Mercury Productions besides Cotten, including Ruth Warrick, Agnes Moorehead and Everett Sloane. In the



PROVIDED BY WARNER BROS.

film, Cotten plays a U.S. Navy engineer who is returning to the U.S. with his wife (Warrick) from Istanbul, only to find himself pursued by Nazi agents who are out to kill him. Without a word to his wife, he flees the hotel the couple is staying in and boards a ship; unfortunately, the enemy agents have followed him there.

MOVIES | CONTENT BY TV WEEKLY

Boyz N the Hood

(1991, Drama) Larry Fishburne **BET, 6 p.m.**

Footloose

(1984, Drama) Kevin Bacon, Lori Singer **BBCA, 6 p.m.**

Blue Streak

(1999, Comedy) Martin Lawrence, Luke Wilson **VH1, 7 p.m.**

Encanto

(2021, Children) **FREEFORM, 7 p.m.**

Indiana Jones and the Dial of Destiny

(2023, Adventure) **FX, 8 p.m.**

Role Models

(2008, Comedy) Seann William Scott, Paul Rudd **PARMT, 8 p.m.**

The Age of Innocence

(1993, Drama) Daniel Day-Lewis, Michelle Pfeiffer **TCM, 8 p.m.**

The Royal We

(2025, Romance) Mallory Jansen **HALLMARK, 8 p.m.**

The Shawshank Redemption

(1994, Drama) Tim Robbins, Morgan Freeman **AMC, 8 p.m.**

Ferris Bueller's Day Off

(1986, Comedy) **BBCA, 8:30 p.m.**

The Lion King

(1994, Children) **FREEFORM, 9 p.m.**

Tommy Boy

(1995, Comedy) Chris Farley, David Spade **PARMT, 10 p.m.**

The House of Mirth

(2000, Historical drama) Gillian Anderson, Eric Stoltz **TCM, 10:30 p.m.**

Menace II Society

(1993, Drama) Tyrin Turner, Jada Pinkett **MGM, 11 p.m.**

The Fugitive

(1993, Action) Harrison Ford, Tommy Lee Jones **AMC, 11 p.m.**

Uncharted

(2022, Adventure) Tom Holland, Mark Wahlberg **FX, 11:30 p.m.**

Network broadcasting shows are listed in Eastern/Pacific Time, unless noted otherwise. Shows air one hour earlier in Central/Mountain Time. Cable broadcasting shows are listed in Eastern Time.