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LONG COVID

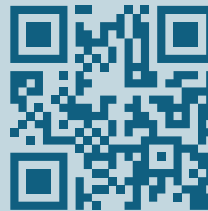
Unpack Causes and
Treatments at Length

A Year in Review

What an incredible year it has been for the AAMA! Our 2024–2025 Board of Trustees, together with dedicated staff, have worked tirelessly on projects that strengthen our profession and support our members. I am proud to share that CEO Donald Balasa, JD, MBA, the Management Steering Committee, 2022–2023 President Deborah Novak, CMA (AAMA), and AAMA staff represented the AAMA at the 2024 Medical Group Management Association Annual Leaders Conference in Denver, Colorado, ensuring that medical assistants are recognized on a national stage.

We launched an ad hoc committee to develop a mentoring tool, which will expand our leadership navigator resources in the coming year. Once completed, this valuable document will be available to all leaders and members eager to take an active role in their local chapters and state societies.

This year also saw the creation of the Maxine Williams Scholarship in Honor of Crystal Coleman, CMA (AAMA), thanks to the hard work of the Maxine Williams Scholarship Committee and the Maxine Williams Board of Directors. I encourage all current AAMA members to visit our website (scan the QR code) for details on this exciting professional development opportunity.



Our Educators Collaborative Task Force established a Facebook group exclusively for educators—a space to share ideas and support one another.

The Continuing Education Board continues to provide up-to-date learning opportunities, including a special sale on an administrative topics bundle during Medical Assistants Recognition Week. At the 69th AAMA Annual Conference, the Certifying Board unveiled a new certification pin for all certified CMAs (AAMA), celebrating your commitment to excellence.

A heartfelt thank you to the Virginia State Society of Medical Assistants for organizing outstanding speakers and to Speaker of the House Jane Seelig, CMA-A (AAMA), and Vice Speaker Claire Houghton, CMA (AAMA), for leading a successful House of Delegates. And congratulations to our Excel Award winners! Your achievements inspire us all! I also extend my gratitude to AAMA staff and Kathy Basel for their behind-the-scenes work that makes our annual conferences successful.

As we look ahead, I invite you to reach out—my email inbox is always open for your thoughts and positive messages. Let us set our sights on new goals and greater achievements in the coming year. Remember: *Ability* is what you're capable of doing. *Motivation* determines what you do. *Attitude* determines how well you do it.

Virginia Thomas, CMA(AAMA)

Virginia Thomas, CMA (AAMA)
2024–2026 President



AAMA® Mission

The mission of the American Association of Medical Assistants® is to provide the medical assistant professional with education, certification, credential acknowledgment, networking opportunities, scope-of-practice protection, and advocacy for quality patient-centered health care.



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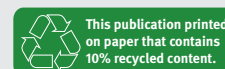
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AAMA update

Have You Heard? The AAMA Has a Podcast!

In each episode of the AAMA's podcast, the AAMA explores various aspects of medical assisting, from essential skills and qualities that make a great medical assistant to the latest advancements and legal victories for the profession. We interview subject matter experts, discuss real-life scenarios, and share practical tips to help you navigate the challenges and triumphs of medical assisting.

In the newest episode, "Insights and Discussions for the Future of the CMA (AAMA) Credential," AAMA CEO and Legal Counsel Donald Balasa, JD, MBA, and AAMA Director of Certification Katie Gottwaldt discuss the evolving landscape of medical assisting.

Together, they discuss critical workforce trends, the shrinking pipeline of accredited training programs, and the AAMA's innovations to help meet today's health care demands. Learn how the CMA (AAMA) credential stands apart from other certifications—and get an inside look at the proposed CMA (AAMA), I.V. microcredential, a powerful step toward expanding clinical competencies and elevating the role, reputation, and recognition of medical assistants nationwide.

Want to Submit Your Membership Dues Renewal via Mail?

Keep an eye on your mailbox in November for the 2026 Membership Dues Remittance Form so you can renew your membership by mail for the 2026 membership term.



2025 Conference Highlights

Hundreds of medical assistants from near and far enjoyed new educational possibilities at the 69th AAMA Annual Conference in Arlington, Virginia. More than 500 people connected with their peers and furthered their knowledge as medical assistants, and more than 300 people participated in the CMA (AAMA) Knowledge Bowl!

Many thanks to the Annual Conference Education Committee, the members of the Virginia State Society of Medical Assistants, and the 2024–2025 Annual Conference Committee for a fun and informative weekend dedicated to medical assisting professionals.

The AAMA congratulates all the Excel Award winners who took home awards from the conference. You go above and beyond to positively represent the AAMA and the medical assisting profession, and your recognition is well-earned. Also, congratulations to Betty Springer, CMA-C (AAMA), for receiving the 2025 AAMA Life Member Award.





Standout Students

Congratulations to this year's recipients of the Maxine Williams Scholarship:



Name: Danielle Carroccia
Expected Graduation: May 2026
Institution: Bryant & Stratton College
In Their Own Words: "I want to be recognized as a dedicated and compassionate medical assistant who makes a meaningful difference in the lives of patients and contributes to the success of my organization."



Name: Layla Carvajal
Expected Graduation: December 2025
Institution: El Paso Community College
In Their Own Words: "My ultimate goal is to become a trusted and valued member of the health care team, known for my compassion, work ethic, and ability to provide exceptional patient care."



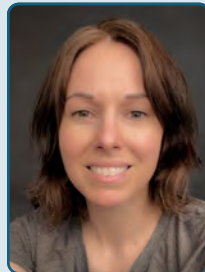
Name: Jennifer Kelly, CMA (AAMA)
Graduated: August 2025
Institution: Tennessee College of Applied Technology at Chattanooga State
In Their Own Words: "I chose medical assisting for the endless possibilities and stable career field."



Name: Cheyenne Koop, CMA (AAMA)
Graduated: July 2025
Institution: UAF Community & Technical College
In Their Own Words: "I have always seen myself working in the medical field [and] doing my best to help others as much as possible, while making a positive impact on the health care system and potentially even the world."



Name: Jennifer Maikranz
Expected Graduation: December 2025
Institution: Anne Arundel Community College
In Their Own Words: "I chose medical assisting because I like taking care of people and their families."



Name: Mallorie Quiring, CMA (AAMA)
Graduated: August 2025
Institution: Clark College
In Their Own Words: "I chose to become a medical assistant because I feel passionate about being someone who can advocate for and work with patients on some of their hardest days."



Name: DorieSue Walker, CMA (AAMA)
Graduated: August 2025
Institution: Greater Altoona Career and Technology Center
In Their Own Words: "I feel very confident that this is exactly the path I am meant to be on."

The CMA (AAMA) Credential

Important Legal and Ethical Guidelines



Donald A. Balasa, JD, MBA
AAMA CEO and Legal Counsel

The CMA (AAMA)[®] credential is a recognizable sign of commitment to excellence in patient care. Therefore, it is essential to understand the importance of correct and consistent use of this highly sought-after designation. Because there are several medical assisting credentials other than the Certified Medical Assistant (AAMA) [CMA (AAMA)], CMAs (AAMA) must understand the legal and prohibited uses of the CMA (AAMA) designation.

Who Can Use the CMA (AAMA) Designation?

Only individuals who hold a current CMA (AAMA) are permitted to use this designation/initialism in connection with employment, including seeking employment. An individual whose CMA (AAMA) is not current, or whose credential has been revoked by the Certifying Board (CB) of the American Association of Medical Assistants[®] (AAMA), may not use the designation “CMA (AAMA)” or “CMA” in connection with employment.

Not Generic

The phrase “certified medical assistant,” and the initialisms “CMA (AAMA)” and “CMA,” are not generic references to medical assistants. The proper generic reference to medical assistants is “medical assistants.”

The AAMA’s Intellectual Property Interests

The AAMA has enforceable intellectual property interests in the phrase “certified medical assistant” and the initialisms “CMA (AAMA)” and “CMA.” This means that, in certain instances, the AAMA may sue parties (e.g., individuals or legal entities such as corporations, partnerships, or limited liability companies) for infringing on the AAMA’s intellectual property interests.

Confusion in the Marketplace

There is confusion in the marketplace for medical assisting credentials. Some people think that all medical assistants are certified medical assistants. Some employers, providers, and managers believe that the kind of credential a medical assistant holds does not matter, as long as the medical assistant holds *some* form of medical assisting credential. *For these reasons, CMAs (AAMA) should use their credentials as frequently and prominently as possible.*

CB Policies on the Use of “CMA (AAMA)”

The following policies dictate the use of the CMA (AAMA) designation, as adopted by the CB.

The CMA (AAMA) initialism should be used after the signature on all professional documents. Signature requirements for patient record charting are at

the discretion of the employer.

Signatures: CMAs (AAMA) may use the credential for signature and professional designations, such as on badges, résumés, letters, and email signatures.

Pins: CMAs (AAMA) may wear the CMA (AAMA) pin. They should never wear any other type of “CMA” pin from another source. Such pins differ in appearance, which dilutes the mark and weakens the brand. Wearing such pins violates CB policy.

Reporting Misuse of the CMA (AAMA) Credential

To reiterate, a medical assistant who does not have a current CMA (AAMA) credential is not permitted to use the designation. Violations should be reported to the AAMA Certification Department via the “Credential Violations Report Form,” which is available on the AAMA website (by searching “Credential Violations Report Form” or within an FAQ on the “Certification” webpage). This is a fillable form that can be completed and submitted electronically. ♦

Questions may be directed to CEO and Legal Counsel Donald A. Balasa, JD, MBA, at DBalasa@aama-ntl.org.



New FREE Courses on the AAMA e-LC!

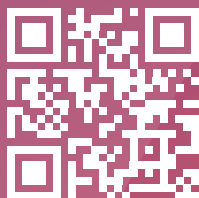
We're excited to announce two new free continuing education courses from our partner CASAT now available on the AAMA e-Learning Center!

Ethical Considerations and Effective Strategies for Preventing Excessive Alcohol Use

1 CLIN/GEN CEU

Explore ethical frameworks and practical prevention strategies to help reduce excessive alcohol consumption in your community.

SCAN TO SEE
COURSE DETAILS

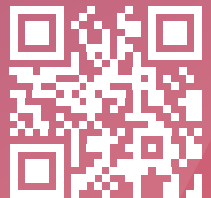


Stimulant Use and Reproductive Health Considerations

1 ADMIN/CLIN/GEN CEU

Gain valuable insight into the intersection of stimulant use and reproductive health, and learn best practices for client care and education

SCAN TO SEE
COURSE DETAILS



By Pamela Schumacher, MS, CCMP, Prosci

Medical assisting students face a wide range of complex and evolving needs—some of which they can clearly express, while others may be harder to articulate or even recognize. While many learn to speak up and advocate for themselves, students may need someone to step in on their behalf. Educators are uniquely positioned to recognize when students need help and actively advocate for the resources they require to succeed.

Faculty Foundations

Educational advocacy involves both educators and students working to ensure they both receive appropriate support and resources.

“For educators, advocacy often means speaking up for students, ensuring they receive equitable opportunities, and removing barriers to success,” says Shannon Richardson, CMA (AAMA), who works at Klickitat Valley Health Family Medicine in Goldendale, Washington.

“For students, advocacy is the ability to express their needs, seek resources, and take responsibility for their learning and professional development. In health care education, where students are preparing to enter a demanding and patient-centered profession, advocacy is not only valuable but essential.”

Richardson says students may encounter several situations in which their educators may need to step in and assist:

- **Institutional barriers, policies, or procedures:** For example, a rigid attendance policy might fail to consider the needs of students with chronic health conditions or family responsibilities.
- **Access to resources:** Not all students begin their education with the same

level of financial, technological, or social support. Educators may need to connect students with resources such as tutoring, counseling, financial aid, or disability services.

- **Clinical placement challenges:** Sometimes students encounter unfair scheduling, inappropriate expectations, or even unsafe work environments.
- **Equity and inclusion:** Students from marginalized groups may face bias, microaggressions, or inequities in grading, evaluation, or access to opportunities.

“Advocacy can take many forms—offering tailored learning resources, motivating students, helping them overcome challenges, and creating environments that nurture academic and personal growth. It’s about empowering students to realize their potential and ensuring they have the tools and

support necessary to succeed,” adds Amanda Beaman, AAS, CMA (AAMA), AHI(AMT), department chair of medical assisting and phlebotomy at Montgomery Community College in North Carolina.

“Student needs always come first,” says Jeff Przybylo, MA, a professor of speech at Harper College in Palatine, Illinois. “It’s our job as teachers to educate administrators about student needs by bringing evidence and research to the table and persisting until students get what they need.”

Przybylo teaches two sections of intercultural communication to allied health students, and he advocates regularly for his students: “For example,

I advocated for finding alternate ways to fund a software program when it became too expensive for individual students. Secondly, I pushed to change the communication requirement for health care

students from public speaking to intercultural communication after a nursing student pointed out that bedside manner skills were more relevant than a public speaking class. Persistence is key. We were successful in both cases because I didn’t take no as the final answer. Instead, when faced with pushback, I analyzed the obstacles and came up with alternatives to which the administration could agree.”

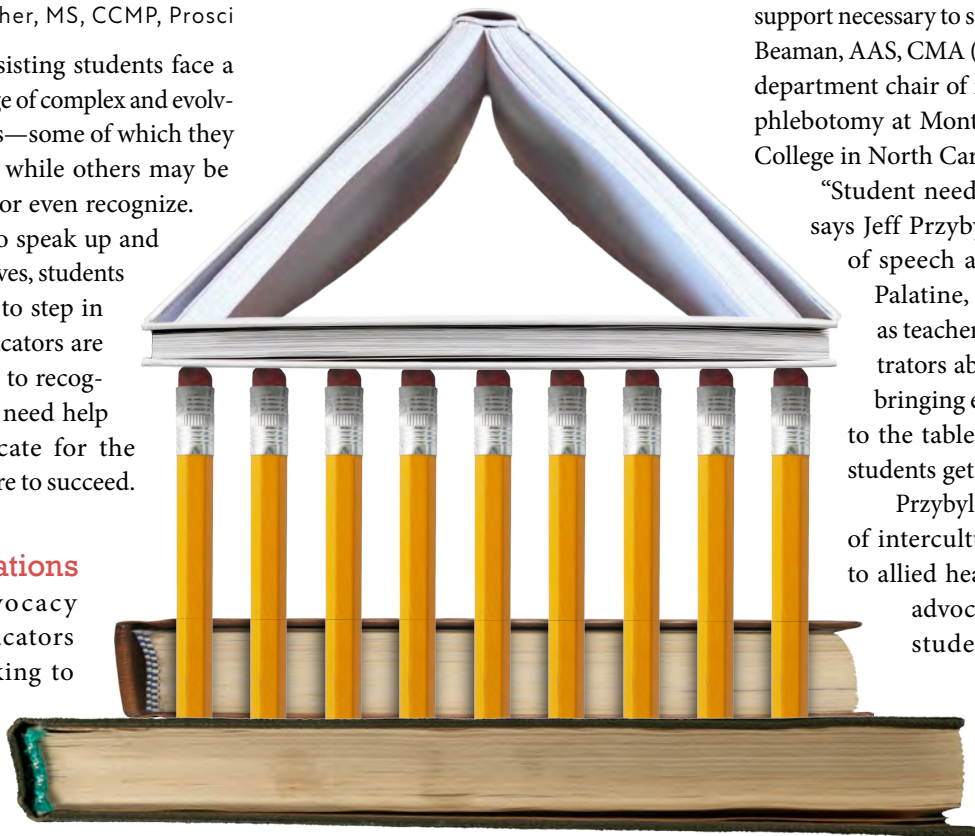
Breaking New Ground

Research suggests that most educators view advocacy as an essential part of their job, but they often struggle to implement it effectively. Early-career educators might feel as though they are overstepping boundaries if they advocate for a student to peers or superiors,¹ particularly if they have never had these kinds of conversations in real life.

All educators can become advocates, says Beaman: “I believe it’s essential to get

PILLARS OF SUPPORT

How Educators Can Stand Up for Their Students



to know students on a personal level. The more familiar you are with their personalities, habits, and strengths, the easier it becomes to recognize when they're facing difficulties. This insight allows educators to step in with timely support and encouragement, giving students the extra push they may need to stay on track and succeed."

Beaman notes that self-reflection is crucial for both students and educators aiming to be advocates. "It increases your self-awareness of not only student needs but your own, allowing you to align student needs with your teaching and to advocate for systemic improvements, as well as personal ones," she says. "Some methods of self-reflection may include daily journaling, reflection activities with students to end each class session, ... and asking critical questions about school practices and how they impact others."

Seasoned educators can help less experienced colleagues by sharing their professional or general knowledge, providing examples of what has worked for them, or sharing helpful research.¹

"Don't do it alone," recommends Przybylo. "Find a veteran teacher who has fought battles for students and ask them to help you navigate the system and get your foot in the door."

Laying the Groundwork

Educators can help students become their own advocates by setting examples in class and encouraging them to serve on student-faculty governing committees, through which staff, faculty, and administrators discuss policies and issues affecting the entire campus. Faculty members should support students who ask questions and speak up during these meetings.²

"Advocating for students begins with

THE POWER TO SPEAK UP

Teaching self-advocacy empowers students not only during their education but also throughout their careers, says Shannon Richardson, CMA (AAMA). She offers this advice for educators:

- **Encourage questions.** When students learn that it is safe—and even encouraged—to ask for clarification, they develop the confidence to speak up in clinical and professional settings.
- **Role-play.** Have students practice addressing a supervisor about scheduling conflicts, requesting clarification about an unclear assignment, or raising concerns about unsafe practices in a clinical setting. Role-playing provides a safe environment to experiment with tone, language, and confidence.
- **Celebrate advocacy efforts.** When students take steps to advocate for themselves, acknowledge and celebrate those efforts. Positive reinforcement not only boosts confidence but also reinforces advocacy as a valued professional skill.

fostering open and trusting communication between educators and learners. When students feel safe and supported, they're more likely to express when they're struggling or overwhelmed. This transparency enables educators to better understand and respond to individual needs, positioning them to be effective advocates," says Beaman.

"We want students to develop skills for self-advocacy, patient advocacy, and working effectively with colleagues," says La Vonne Downey, PhD, professor of health services and public administration at Roosevelt University in Chicago, Illinois. "So, it's not so much that educators should advocate for students, but we must teach them the skills to advocate for themselves. We do this with a two-pronged approach.

"First, we help students understand the entire health care ecosystem by using detailed case studies. Students are assigned different roles, such as insurance payers, hospital workers, government agency employees, or health care providers. Secondly, we apply ethical principles to various situations, from medical errors to layoffs to cultural misunderstandings. The students must understand and play each role. The peer discussions help to build their skill set," says Dr. Downey, who is also program director of health science administration

at Roosevelt University. "When students are assigned a role in a case study, it forces them to understand that person's point of view, and it makes them a better advocate."

Uplifting Each Other

Some students also participate in Dr. Downey's advocacy work on a global stage. "I've been a Global Goals ambassador for the United Nations' [third] sustainable development

goal ..., 'Good Health and Well-Being,' since 2015. When I testify or meet with senators and legislators, I bring some of my health students along, and they get to see what advocating on a big stage feels like.

"Students feel empowered when they advocate for others," says Dr. Downey. "When representatives, senators, or patients acknowledge that students care enough to help people they may never meet, it gives students a sense of efficacy in their profession. It helps them feel they're part of the solution rather than becoming overwhelmed by the system. We teach that those who have more privilege need to advocate more for people without a voice." ♦

References

1. Breen A. Getting comfortable with complicated conversations: how teachers advocate for their students. University of Virginia, School of Education and Human Development. November 2, 2023. Accessed October 15, 2025. <https://education.virginia.edu/news-stories/getting-comfortable-complicated-conversations-how-teachers-advocate-their-students>
2. DeHaan LC, Franco J, Reyna V, Villegas R. A commitment to teaching, learning, and student advocacy: community college career. In: *Strategies for Navigating Graduate School and Beyond*. American Political Science Association. June 4, 2024. Accessed October 15, 2025. <https://apsanet.org/wp-content/uploads/2024/08/GS1-Chapter-37.pdf>

Extreme Weather Affecting Pharmaceutical Supply and Access

If the existing human and financial toll weren't already enough, extreme weather events—often exacerbated by climate change—are disrupting the supply of and access to life-saving pharmaceuticals, according to research published in *JAMA*.

Researchers found that the nation's pharmaceutical supply chain is compromised and at risk during large-scale disasters, as described in the *ASCO Post*, published in partnership with the American Cancer Society. For example, in addition to its historic impacts in Appalachia, Hurricane Helene in 2024 weakened a North Carolina facility that produces 60% of the country's intravenous fluids.

In response to this and other threats to the drug supply chain, 20 organizations representing patients, providers and health systems, and public health groups have formed the Drug Shortage Task Force, which works to address the concerns of the many Americans who face the harms of this systemic crisis.

With representation from the National Health Council, National Rural Health Association, and American Medical Association, among others, the task force is working to develop an early warning system to signal supply chain threats and vulnerabilities as well as bolster domestic capacity and production, to include broader geographic diversification of manufacturing and increased supply chain redundancies.



Looking Critically at ASD Incidence

Recent data from the Centers for Disease Control and Prevention show a continued upsurge in the diagnosis of autism spectrum disorder (ASD). Some scientists, however, are afraid that this increase is an example of science being politicized by President Donald Trump's administration—particularly, the Department of Health and Human Services (HHS).

In April, HHS held a press briefing in which department Secretary Robert F. Kennedy, Jr., stated that the “epidemic” is “running rampant” and called for research into the underlying causes of the increase, which he blames on an “environmental toxin.” Indeed, a recent NPR report says HHS released a report linking the use of acetaminophen during pregnancy, as well as certain vitamin deficiencies, to ASD. *It is important to note that no credible scientific evidence exists for these claims.*

Others in the scientific community, however, have called for a more measured and wary response. An article in *Nature* states that pointing at environmental causes for ASD “ignore[s] decades of work on the well-documented rise in autism diagnoses and on causes of the developmental condition.”

In fact, the expansion in the diagnostic criteria for ASD in 2013 has led to many more diagnoses than would have occurred otherwise, as noted in a *Scientific American* article. Increased awareness among the public has also contributed to the increase.



Rural Hospitals Strategizing for Survival

Cuts in funding and reimbursements alongside declining and aging populations are endangering some rural hospitals that provide key, safety-net services to patients.

To help stay afloat, a number of rural institutions are banding together into clinically integrated networks, that is, “collaborative groups that allow them to avoid selling out to larger health systems while sharing resources to save money and improve patient care,” reports NPR. Joining such networks is becoming a viable alternative to shutting down or being swallowed by a large hospital system.

The report profiles a group of independent, rural North Dakota hospitals in the Rough Rider Network that are combining their patient rolls to negotiate lower pricing for services and offerings, such as a mobile MRI truck, which would be beyond the budget of any individual network member.



Supporting Physician Leaders Means Hiring Medical Assistants

For physicians, the growing list of practice pressures—including flat or declining reimbursements, unfunded federal mandates, and insurer interference in care decisions—has contributed to widespread physician burnout, affecting both the quality and quantity of health care services.

A new survey from the American Medical Association (AMA) finds that a supportive, open, and high-functioning team environment can help reduce burnout and restore the joy of medicine. A key piece to the puzzle, according to the survey? Medical assistants.

The survey garnered nearly 18,000 responses from physicians on key factors, including job satisfaction, job stress, and burnout. Several survey data points reflect the importance of medical assistants.

More than a quarter of physicians reported a lack of adequate physicians and support staff as a key source of stress. An ongoing need exists for additional personnel, including medical assistants, to help reduce physician workload, according to the survey.

The AMA article on the survey results shares best practices from physician practices across the country on delegating certain tasks to medical assistants and enhance a team-based approach to health care.

Redlined Neighborhoods and Breast Cancer: A Troubling Link

Although outlawed decades ago, redlining, a controversial and segregationist real estate practice, continues to influence public health outcomes.

In particular, factors leading to breast cancer and survival rates are negatively affected for women living in the most impoverished, lower socioeconomic neighborhoods, based on research from the University at Buffalo, as highlighted in ScienceDaily.

Started in the 1930s, the federal policy behind redlining assigned mortgage security grades (from A to D) to neighborhoods throughout the country based on factors such as race, ethnicity, socioeconomic class, and land use. Lenders used the practice to deny prospective homeowners access to credit based solely on where they lived, especially in urban neighborhoods with large populations of Black residents. The policy was outlawed in 1968.

Nonetheless, homeownership and wealth continue to lag in redlined neighborhoods, which were also used as sites for highways, industrial facilities, and other sources of pollution and toxic waste, compounded by a lack of parks and trees.

“Redlining affected the design of U.S. cities and determined much of today’s environmental profiles and socioeconomic resources in neighborhoods,” making it a “perfect storm for breast cancer,” says Sarah M. Lima, lead author on the two studies that observed breast cancer survival rates and breast cancer factors in redlined neighborhoods.



LONG COVID

Unpack Causes and Treatments at Length

More than five years have passed since the global COVID-19 pandemic began. From its initial outbreak in late 2019, the virus—described by the World Health Organization (WHO) as severe acute respiratory syndrome coronavirus 2, or SARS-CoV-2—spread rapidly worldwide. Declared an international public health emergency by WHO on January 30, 2020, the growing viral outbreak was subsequently characterized as a global pandemic within weeks.¹

The pandemic's impact was deeply felt throughout the world. The COVID-19 pandemic represents one of the most significant global public health events of modern times, with far-reaching social, economic, and health consequences. In fact, there have been more than 776 million cases reported worldwide, including more than 7 million deaths.² In the United States, COVID-19 has been identified by the Centers for Disease Control and Prevention (CDC) as the underlying cause (87%) or contributing cause (13%) of death for over 1,235,000 reported deaths.³

The global public health emergency officially ended on May 5, 2023.¹ Compared to the worst of the pandemic, when nearly half a million deaths were reported in 2021, life has improved. In 2025, although likely undercounted, fewer than 16,000 deaths related to COVID-19 have been reported as of October.³ The disease has become more manageable, with less risk of severe illness and hospitalization. More effective treatment options, increased public immunity from multiple vaccinations and previous infections, and other factors contribute to reducing public health risks.

An Enduring Legacy

While the worst of the pandemic may be behind us, the legacy of COVID-19 continues to impact society. Many people have lost family members and friends to the disease and endured economic hardship, mental health challenges, and other difficulties. And, COVID-19 remains endemic and poses a persistent infectious disease threat. It would be a mistake to dismiss the presence of COVID-19 as no longer of much concern

or comparable to a common cold.

Yet public concerns over COVID-19 have declined. In spring 2025, only 23% of adults reported having received the latest available COVID-19 vaccine. For children, the vaccination rate was 13%.⁴ Additionally, just about 4% of the public report regularly wearing a mask in public settings.⁵

One enduring effect of COVID-19 is found in the sizable population that contracts the SARS-CoV-2 virus who do not experience complete resolution of their illness following the infection's acute phase. Instead, these individuals experience persistent, new, or reemerging COVID-19 symptoms for weeks, months, or even years.

The condition is known as *long COVID*, a term first used by COVID-19 patients themselves in the early days of the pandemic.⁶ Long COVID refers to the wide range of conditions that can follow SARS-CoV-2 infection.

WHO describes long COVID as “the continuation or development of new symptoms three months after the initial SARS-CoV-2 infection, with these symptoms lasting for at least two months with no other explanation.”⁷

In 2024, the National Academy of Sciences, Engineering, and Medicine (NASEM) defined long COVID as “a chronic condition ... that occurs after SARS-CoV-2 infection and is present for at least three months as a continuous, relapsing and remitting, or progressive disease state that affects one or more organ systems.”⁸ As a newer disease phenomenon, more precise definitions of long COVID vary somewhat within the scientific community. However, the WHO and NASEM definitions are designed to reflect the broad understanding of long COVID based on current knowledge.

Measuring Causes

While research is ongoing, much has already been learned about what causes long COVID. One crucial contribution to unraveling the mysteries of long COVID comes from the Iwasaki Laboratory at Yale School of Medicine. Led by Akiko Iwasaki, PhD, an immunobiologist and the laboratory's director, four possible hypotheses have been proposed to explain the biological mechanisms underlying the onset and pro-

gression of long COVID following SARS-CoV-2 infection:

1. Persistent viral loads or remnants hidden away in tissue and causing chronic inflammation. These viruses may not be measurable via nasopharyngeal swabs because they might be “hiding” in other internal organs, such as the gut.
2. Our body's own disease-fighting B and T cells triggering an immune response—and subsequent inflammation—in a process called autoimmunity. The problem is [that] the stimulus that triggers autoimmunity in response to an acute infection is oftentimes occurring continuously in the body, making it difficult to pinpoint and shut down.
3. Dormant viruses reactivating, and/or dysbiosis of microbiome disturbing our body's homeostasis. Humans live with trillions of bacteria and a number of viruses that are latent. When acute infection disturbs the host, these bacteria lose [their] composition balance and dormant viruses can become reactivated. These viruses and microbes can cause inflammation and throw off [the] body's homeostasis.
4. Macroscopic and microscopic tissue damage resulting from the initial infection. COVID-19 impacts parts of our body that we don't commonly think about. Whether it's our lungs, ... our brains, or the endothelial tissue lining our blood vessels and supporting oxygen change, the virus—and the medication used to treat it—can lead to clotting or scarring in places that are difficult to reach and repair. In addition, inflammation that occurs in one tissue can trigger damage in other tissues.⁹

Individuals with long COVID may exhibit certain distinct immune characteristics, according to the Iwasaki Laboratory⁹:

- Amped or excessive humoral response to SARS-CoV-2
- An increased antibody response to other pathogens, such as the Epstein-Barr virus
- Lower cortisol levels
- Abnormal leukocyte (white blood cell) populations

In particular, lower cortisol levels are considered a key predictor or driver of long COVID.⁹

By the Numbers

While estimates vary, in 2023, the National Institutes of Health (NIH) found that as many as 23 million Americans may have long COVID, acknowledging also that many people were probably unaware their symptoms were linked to COVID-19.¹⁰

Approximately 6% of those who contract COVID-19 worldwide will develop long COVID, according to WHO.¹¹ Other estimates for percentages of those who experience long COVID come from a 2024 study published in *JAMA Network Open* (8% of U.S. adults),¹² a CDC 2024 Household Pulse Survey (18% of adults),¹³ and Massachusetts General Hospital (23% of the U.S. population).¹⁴

However, variables such as study design, the population under study, the source of data (whether from patient self-reporting or observational cohort studies), the predominant COVID-19 variant at the time of the study, and other factors can influence reported results.¹⁴

Likely, many cases of long COVID go unreported, as the NIH and other experts acknowledge. “As a researcher who studies these patients, I would argue that a lot of people have had long COVID; they have the symptoms, but they don’t connect it to COVID-19,” says Lauren Stiles, JD, president of Dysautonomia International and research assistant professor of neurology at Stony Brook University in New York. “They don’t realize the reason why they’re super fatigued or why their hair might be falling out is because they had COVID-19 three months before. Sometimes when people say they haven’t had COVID-19, they were probably asymptomatic and didn’t know they were infected. A very high rate of people can develop long COVID, or other postinfectious syndromes can occur similar to long COVID, even when the initial infection agent was asymptomatic.”

Closing the Distance

Undoubtedly, long COVID is a complex and challenging condition, not only for patients but for the clinicians working to assist their

Anyone can get long COVID, but you may be at higher risk if any of the following apply to you¹⁹:

- Older than 65
- Female
- Hispanic or Latino
- Do not have the COVID-19 vaccine
- Have experienced severe COVID-19 illness
- Have other health conditions

recovery. As research and treatment options still evolve, comprehensive, patient-centered care must guide the health system’s efforts in this area, according to experts.

“Long COVID is a real, disabling condition that deserves recognition and validation,” says Nikki Gentile, MD, PhD, medical director of the UW Medicine Long COVID Clinic in Seattle, Washington. “It affects people across all demographics, regardless of age, health history, or the severity of their initial COVID-19 illness. It can present as a wide range of symptoms—neurological, cardiopulmonary, gastrointestinal, musculoskeletal, and more—and may impair daily functioning, work, or relationships. Importantly, long COVID does not have a singular diagnostic test, making clinical understanding and patient-centered care critical for its recognition. Public messaging should emphasize that this condition can be disabling, often invisible, and that patients experiencing it are not exaggerating or imagining their symptoms. Validating these experiences is essential to reducing stigma and fostering trust in health care settings.”

As Dr. Gentile explains, the clinic offers an integrated array of patient care services. “Our clinic employs a multidisciplinary, patient-centered approach grounded in four key care anchors: psychosocial support, restorative movement, nutrition, and sleep/rest,” she says. “These anchors target modifiable aspects of health frequently disrupted by long COVID. By prioritizing individualized care through shared decision-making, this framework accounts for the variability of symptoms and severity among patients. We integrate both pharmacologic and non-pharmacologic

symptom management strategies tailored to each patient’s needs. Additionally, we collaborate closely with specialists, including physical therapists, speech-language pathologists, acupuncturists, and psychologists, to provide comprehensive and holistic care.”

As a relatively new area of specialized care, long COVID poses multiple treatment challenges, according to Dr. Gentile: “The biggest challenges include diagnostic uncertainty, as long COVID spans multiple systems and lacks definitive tests, and addressing post-exertional malaise in patients who experience symptom crashes after minimal activity, like [walking], taking a shower, or vacuuming. Additionally, navigating disability systems, fragmented referrals, and the psychosocial burden patients face due to stigma and misinformation about long COVID further highlight the need for comprehensive and coordinated care.”

Accordingly, treatment for long COVID is tailored to each patient’s unique clinical presentation, addressing concerns through a coordinated, stepwise approach to case management. “First, we identify patient goals and prioritize symptoms,” explains Caitlin McAuley, DO, a family medicine specialist who sees long COVID patients through the COVID Recovery Clinic at Keck School of Medicine of USC in Los Angeles. “I ask patients which are their top symptoms, ... [or which symptoms] interfere with their lives the most. Next, we want to make sure that other basic workups have been done, usually through their primary care provider, and, if needed, add a limited number of specific tests for co-occurring conditions. However, many patients do not need further testing by the time they reach the clinic, as they have already seen many specialists.”

“Since there is no established curative treatment for long COVID, we focus on symptomatic management,” adds Dr. McAuley. “I rely heavily on the American Academy of Physical Medicine and Rehabilitation guidance statement, most recently updated this year, for medications that help with different symptoms. I also rely on my occupational therapy and physical therapy colleagues to guide rehabilitation without causing worsening of symptoms from excessive exertion.”

In working with long COVID patients, Dr. McAuley identifies a few common barriers to recovery. “Challenges to recovery include limited response to medications, sensitivity to medications, and repeat infections,” she reports. “Repeat infections can lead to setbacks in symptom improvement and can also sometimes lead to new symptoms. Co-occurring conditions such as postural orthostatic tachycardia syndrome—POTS, mast cell activation syndrome—MCAS, and hypermobility can also be complicating factors for improvement.”

The Intersection of Dysautonomia and Long COVID

As a type of dysautonomia (a disorder of the autonomic nervous system), POTS deserves special consideration in our understanding of long COVID. As a generally unrecognized medical condition, estimates of its prevalence among patients with long COVID vary. One report in *Nature Reviews Cardiology* found POTS affects approximately 30% of highly symptomatic individuals with long COVID.¹⁵ Other studies suggest the impact may be even higher. For example, a report from Stanford University, Stony Brook University, and Dysautonomia International found 67% of long COVID cases involve symptoms of dysautonomia.¹⁶

While estimates of the exact extent of POTS or dysautonomia in long COVID differ, due to diagnostic and other study challenges, it is an important factor in many long COVID cases. “Dysautonomia, including POTS, is a common issue among patients with long COVID,” says Dr. Gentile. “There is an emerging body of research exploring the links between POTS and long COVID, though the underlying mechanisms are not yet fully understood. The connections are thought to involve dysregulation of the autonomic nervous system, chronic inflammation, and other systemic disruptions caused by

SARS-CoV-2 infection.

“POTS results from autonomic dysfunction, where the nervous system struggles to regulate blood flow and circulation, often triggered by upright posture,” explains Dr. Gentile. “Patients frequently experience symptoms such as tachycardia, shortness of breath, fatigue, dizziness, brain fog, and palpitations, all of which significantly impair daily functioning. Many patients report experiencing ‘crashes’ 24–72 hours after a full day of work or school due to post-exertional fatigue, post-exertional malaise, or post-exertional symptom exacerbation—PESE, which underscores the importance of managing activity levels and accommodating limitations in work, school, and extracurricular settings.”

Notably, a recent study links the COVID-19 pandemic to an unprecedented surge in POTS cases. A University of Toledo review of electronic medical records for over 65 million patients shows more than a five-fold increase in POTS cases since the pandemic’s onset. The study covers data from January 2018 to June 2024, with March 1, 2020, marking the beginning of COVID-19. To note, medical researchers have for some time suspected POTS is triggered by viral infections, such as the Epstein-Barr virus.¹⁷

Unfortunately, there is a shortage of specialists in autonomic disorders who treat POTS, and patients often endure long wait times for specialist appointments. “While it can be challenging to find a specialist, some testing, such as a NASA lean test, can be done in a primary care office or at home

with the right equipment,” says Dr. McAuley. “However, there is still a lack of knowledge and training in many medical settings, so the condition can go unrecognized.”

The NASA Lean test is a brief, straightforward point-of-care method that can help physicians diagnose and treat orthostatic intolerance.¹⁸

Despite the challenges, much can still be done to improve the health of patients with POTS. “Treatment for POTS can involve several therapies,” says Dr. Gentile. These involve a combination of supportive measures, including increased hydration, dietary sodium intake when medically appropriate, compression garments, and heart rate monitoring. Pacing is [also] emphasized as a critical strategy for managing activity within energy limits to avoid PEM/PESE [post-exertional malaise or post-exertional symptom exacerbation]. Pacing is a symptom management skill that [involves] purposefully scheduling or planning activities that require physical, cognitive, social, or emotional energy, alongside planned periods of rest, to allow for adequate recovery and energy conservation. Pacing with a gradual progression in activity—e.g., starting with recumbent exercises and gradually progressing to more upright activities as tolerable while remaining within the energy envelope—acknowledges the risk of symptom flares, particularly when first getting started. Ultimately, the goal is to learn to listen to your body’s cues that you are using too much energy and make changes to prevent overexertion.

“The activity progression here is patient-directed,” adds Dr. Gentile. “This approach differs from graded exercise therapy—GET, which systematically increases physical activity over time, often without consideration for symptom exacerbation, and operates on the assumption that symptoms are primarily due to deconditioning—a strategy that many patients have historically been encouraged to pursue. However, research has shown GET to be ineffective and potentially

Counting on You

“Don’t wait for a top-down mandate to learn: Seek out continuing education and practical tools now. *The Comprehensive Guide to Long COVID: Volume 2*, published by the COVID-19 Longhailer Advocacy Project, provides concrete assessment tools and clinician guidance. Partnering directly with people living with long COVID can strengthen empathy and care planning. This is one of the largest mass-disabling events of our lifetimes; the fastest way to improve outcomes is for providers outside the long COVID specialty community to engage, learn, and deliver patient-centered, evidence-informed care.”

—Karyn Bishof, COVID-19 Longhailer Advocacy Project Founder and President

harmful for individuals experiencing PEM and PESE, and, as a result, some patients remain cautious or skeptical of treatment plans that resemble GET due to its negative impact. We do *not* recommend GET for patients with long COVID.

“For more severe cases of POTS, medications such as beta blockers, pyridostigmine, or fludrocortisone may be used to alleviate symptoms,” notes Dr. Gentile. “Early identification, individualized pacing, and holistic care approaches are essential for reducing the impact of dysautonomia and improving patient outcomes.”

As issues with dysautonomia illustrate, improving treatment for long COVID requires identifying the underlying physical causes or disease subtypes that may occur in the disease.

“To find a ‘cure’ and more effective treatments, we really need to target a subset of the patients, because the biological mechanism in long COVID is probably not one thing,” explains Stiles. “For example, a person who has had COVID-19, was hospitalized, and had significant lung damage might have lifelong respiratory problems. [Their symptoms] would fit under the definition of long COVID. Another person might have had an asymptomatic initial infection, but they developed a neuropathy a month later. They will have a different diagnosis, a different biological mechanism causing their chronic health problem, but they’re also a long COVID patient. The treatment isn’t going to be the same. This is why researchers are tailoring or trying to find treatments for specific manifestations of long COVID. The underlying and most common mechanisms that we are seeing are neurological damage, inflammation, and autoimmunity issues. There’s still debate as to whether viral persistence plays a role, which I think is a good scientific debate to have.”

Stretch Your Skills

Many physicians may feel uncertain about diagnosing and treating long COVID because it is a newer medical condition. Experienced clinicians recognize and want to address the concern.

“Getting the diagnosis of long COVID from a provider can open doors for patients,”

says Dr. McAuley. “This is why there is a national effort amongst long COVID clinics to educate other providers, especially in primary care. My main message is to look at the timing of symptom onset, [which should occur] within two months of a COVID-19 infection or a COVID-like illness, paired with a workup for different symptoms [and] systems being normal. Instead of telling patients, ‘I don’t know what is wrong,’ we should be saying, ‘This meets criteria for long COVID.’ I also emphasize that we should start working on symptom management even while the workup is happening. I’ve seen many patients without treatment for over a year while they were being worked up by multiple specialists. One final challenge, which applies to the health care system in the United States, is [the] lack of comprehensive care coordination. Patients with long COVID and other chronic illnesses, especially those affecting cognition, fall through the cracks because they can’t coordinate their own care effectively.”

Dr. Gentile agrees that the health care system faces multiple challenges in improving care for long COVID patients. “Improving care begins with recognizing long COVID as a legitimate and multifaceted condition,” she suggests. “Clinicians and care team members should familiarize themselves with its common presentations—fatigue, cognitive dysfunction, dysautonomia, and multisystem symptoms—and validate patients’ lived experiences, even in the absence of conclusive diagnostic tests. Asking open-ended questions about how

symptoms impact daily life can help the care team better understand and document [changes] in the patient’s day-to-day functioning and their new limitations, which is often critical for accessing support such as disability insurance benefits. Supporting patients with practical guidance on work [or] school accommodations, ensuring equitable standards of care, and practicing thoughtful referral stewardship are key elements of effective care. Clinicians should also prioritize high-value testing to rule out reversible conditions—e.g., anemia—commonly associated with long COVID and avoid over-testing, which can lead to unnecessary costs and stress for patients.

“Health care systems can enhance support for clinicians by fostering interdisciplinary collaboration, streamlining referral pathways to specialists and ancillary services, promoting equitable access to care, providing continuing education focused on emerging guidelines and evidence, and incorporating longer visit times to address the complexities of long COVID,” explains Dr. Gentile. “Additionally, trauma-informed care approaches should be integrated into routine practice to address long COVID patients’ psychological burden and combat the skepticism that many face in medical settings. By combining patient-centered care with health system improvements, clinicians and care team members can help bridge the gaps in long COVID care and provide compassionate, effective support for this vulnerable population.”

In turn, within health systems, clinic staff should familiarize themselves with the needs of this patient population. As an educator, Latasha Ladd, BHCM, MEd, emphasizes the importance of medical assisting staff being attentive listeners when patients describe their symptoms or health issues during visits. This can be an especially vital skill in cases like long COVID, whose complex presentation and diagnostic challenges require thoughtful consideration by clinicians.

“You never want to minimize or downplay what someone is telling you,” says Ladd, who is the medical assisting program director at South University in Columbia, South Carolina. “Sometimes patients might find it

Patient Care Resources

UW Medicine Long COVID Clinic
University of Washington, Seattle
www.longcovidclinic.uw.edu

COVID Recovery Clinic, Keck Medicine of USC
University of Southern California, Los Angeles
<https://www.keckmedicine.org/covid-recovery-clinic>

hard to articulate what exactly is bothering them. The medical assistant can help them explain it to the provider [more effectively] once we get their chief [concern]. If patients are having new symptoms or [concerns] after [contracting] COVID-19, it's important for staff to be aware and listen carefully and with compassion. We can often help pull that information out of them."

In the Long Run

Undoubtedly, there are many hurdles and challenges to improving care for the long COVID patient community. With research funding cuts and public health leadership in turmoil, including the recent closure of the U.S. Department of Health and Human Services Office of Long COVID Research and Practice, future progress toward improved services, resources, and clinical care might appear uncertain.

Notably, as both a patient advocate and researcher, Stiles participated in NASEM's effort to develop a definition of long COVID. As such, she's aware of both the research progress already achieved and the roads still to be traveled for a fuller understanding of long COVID and how to treat it.

"When you meet long COVID patients, my advice is to believe them," says Stiles. "These patients need boots-on-the-ground help. Primary care offices are where most patients go, because there are not enough specialty centers. We need primary care, pediatrics, and general medicine [physicians] and clinicians to step up and try to help these patients. Patients and clinicians should know dedicated people [are] working to understand the biology of long COVID and related conditions and to find more effective treatments. Research endeavors are always difficult ... but I'm hopeful we are going to have some better answers soon."

Indeed, long COVID is perhaps already less a mystery disease than a condition whose complex, multifaceted presentation is now being methodically unraveled. Thanks to the many researchers, clinicians, and patients whose work and insights are contributing to a growing body of medi-

Advocacy Resources

Long COVID Alliance

<https://longcovidalliance.org>

Dysautonomia International

<https://www.dysautonomiainternational.org>

COVID-19 Longhailer Advocacy Project

<https://www.longhailer-advocacy.org>

cal knowledge about long COVID, future progress toward improved patient care is a realistic expectation. ♦

The CE test for this article can be found on page 28.



References

1. Coronavirus disease (COVID-19) pandemic. World Health Organization. Accessed October 15, 2025. <https://www.who.int/europe/emergencies/situations/covid-19>
2. Coleon A, Larrous F, Kergoat L, et al. Hamsters with long COVID present distinct transcriptomic profiles associated with neurodegenerative processes in brainstem. *Nat Commun*. 2025;16. <https://doi.org/10.1038/s41467-025-62048-7>
3. Ahmad FB, Cisewski JA. Provisional COVID-19 mortality surveillance. National Center for Health Statistics. Reviewed September 25, 2025. Accessed October 15, 2025. <https://dx.doi.org/10.15620/cdc/20250305007>
4. Weekly COVID-19 vaccination dashboard. Centers for Disease Control and Prevention. May 7, 2025. Accessed October 15, 2025. <https://www.cdc.gov/covidvaxview/weekly-dashboard/index.html>
5. Tyson A, Lipka M, Deane C. Five years later: America looks back at the impact of COVID-19. Pew Research Center. February 12, 2025. Accessed October 15, 2025. <https://www.pewresearch.org/politics/2025/02/12/5-years-later-america-looks-back-at-the-impact-of-covid-19/>
6. Alwan NA, Johnson L. Defining long COVID: going back to the start. *Med*. 2021;2(5):501-504. doi:10.1016/j.medj.2021.03.003
7. Post COVID-19 condition (long COVID). World Health Organization. December 7, 2022. Accessed October 15, 2025. <https://www.who.int/europe/news-room/fact-sheets/item/post-covid-19-condition>
8. National Academies of Sciences, Engineering, and Medicine. *A Long COVID Definition: A Chronic, Systemic Disease State with Profound Consequences*. 2024. <https://doi.org/10.17226/27768>
9. Immunology of long COVID. Yale School of Medicine. Accessed October 15, 2025. <https://medicine.yale.edu/lab/iwasaki/projects/immunology-long-covid/>
10. National Institutes of Health. *What You Need to Know About Long COVID*. Accessed October 15, 2025. <https://covid19community.nih.gov/sites/default/files/2023-02/CEAL-WhatYouNeedtoKnowLongCOVID-English.pdf>
11. World Health Organization. *Post COVID-19 condition (long COVID)*. Accessed October 15, 2025. [https://www.who.int/news-room/fact-sheets/detail/post-covid-19-condition-\(long-covid\)](https://www.who.int/news-room/fact-sheets/detail/post-covid-19-condition-(long-covid))
12. Vahratian A, Saydah S, Bertolli J, Unger ER, Gregory CO. Prevalence of post-COVID-19 condition and activity-limiting post-COVID-19 condition among adults. *JAMA Netw Open*. 2024;7(12):e2451151. doi:10.1001/jamanetworkopen.2024.51151
13. Long COVID: Household Pulse Survey. Centers for Disease Control and Prevention. Reviewed October 3, 2024. Accessed October 15, 2025. <https://www.cdc.gov/nchs/covid19/pulse/long-covid.htm>
14. Wappes J. About 8% of US adults have ever had long COVID, survey finds. CIDRAP. December 13, 2024. Accessed October 15, 2025. <https://www.cidrap.umn.edu/covid-19/about-8-us-adults-have-ever-had-long-covid-survey-finds>
15. Fedorowski A, Sutton R. Autonomic dysfunction and postural orthostatic tachycardia syndrome in post-acute COVID-19 syndrome. *Nat Rev Cardiol*. 2023;20:281-282. <https://doi.org/10.1038/s41569-023-00842-w>
16. Dysautonomia International. *An Estimated 38 Million Americans Have Developed an Autonomic Nervous System Disorder Following COVID-19 Infection According to Experts, Signaling Healthcare Crisis*. April 28, 2022. Accessed October 15, 2025. https://dysautonomiainternational.org/pdf/LongCOVID_Dysautonomia_PressRelease.pdf
17. Linkhorn T. COVID-19 brought about a large rise in POTS cases. University of Toledo. March 24, 2025. Accessed October 15, 2025. https://news.u.toledo.edu/index.php/03_24_2025/covid-19-brought-about-a-large-rise-in-pots-cases
18. Lee J, Vernon SD, Jeys P, et al. Hemodynamics during the 10-minute NASA Lean Test: evidence of circulatory decompensation in a subset of ME/CFS patients. *J Translational Med*. 2020;18:314. doi:10.1186/s12967-020-02481-y
19. Long COVID basics. Centers for Disease Control and Prevention. July 24, 2025. Accessed October 15, 2025. <https://www.cdc.gov/long-covid/about/index.html>



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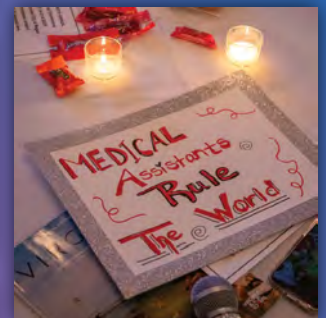


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Inflamed in the Main Brain: The Link Between Smog and Alzheimer Decline

Multiple studies have demonstrated the adverse effects of air pollution on respiratory and cardiovascular health. Now, new research pinpoints an additional threat posed by high concentrations of particulate matter in the air: a marked increase in cognitive decline among people with Alzheimer disease.

As profiled on ScienceDaily, research from the Perelman School of Medicine at the University of Pennsylvania has isolated the environmental impact of poor air quality on Alzheimer. The culprit?

Particulate matter in the air from wildfire smoke, car exhaust, construction site debris, or combustion from factories.

Living in areas with polluted air can lead to significant cognitive decrements, including functional decline, memory loss, impaired judgment, and difficulty with personal care, according to the research.

“This study shows that air pollution doesn’t just increase the risk of dementia—it actually makes Alzheimer disease worse,” says Edward Lee, MD, PhD, codirector of Penn’s Institute on Aging. “As researchers continue to search for new treatments, it’s important to uncover all of the factors that contribute to the disease, including the influence of the environment in which they live.”

Even a short time (one year) living in an area with high pollution levels can have a “big impact” on one’s risk of developing Alzheimer, adds Dr. Lee, highlighting the need for environmental justice and public health efforts to reduce pollution and its impacts.



Flip This Sleep Switch

Party people may blithely state, “I’ll sleep when I’m dead.” But this short-term mindset downplays the significant role of sleep in our overall health, particularly for physical and mental growth and rejuvenation.

Because of the link between growth hormone and metabolism of glucose and fat, insufficient sleep can also raise the risk of obesity, diabetes, and cardiovascular disease.

Researchers from the University of California, Berkeley, have identified brain circuits that regulate and balance the release of growth hormone during sleep. The research, published in the journal *Cell*, shows promise for insights into treating patients with sleep disorders, as well as degenerative diseases like Parkinson and Alzheimer. Such research can also aid the development of hormonal therapies that can restore normal growth hormone balance and improve sleep quality.

In the meantime, clean up your sleep hygiene and bedtime routines: be consistent to strengthen your burgeoning good habits, try multiple relaxation methods to find what works best for you, and dim your lights in the evening to aid melatonin production and signal it’s time to wind down.





Birds of a Feather Grow Old Together

Humans learn much from animals (the early bird gets the worm!), and studies may soon be adding a new avian idiom, since movement appears to improve aging.

A decades-long study from France indicated that the pink flamingoes that migrate age more slowly than their resident counterparts (although they do endure early hardships), notes the study published in the *Proceedings of the National Academy of Sciences*.

The study confirms a growing body of research that one's life trajectory and activity influence one's longevity. The non-migrating flamingoes enjoy "higher survival and reproduction performances early in life" than their fellow migratory avians, but "possibly bear the cost of their early-life advantages in advanced age, exhibiting both accelerated reproductive and actuarial senescence" (i.e., accelerated biological aging).

The article notes that this and related research into how certain animals are born, reproduce, and die may help scientists unlock the secrets of aging and the mystery of how and why we die.

Highs and Lows of Dairy

Have you heard it's time to moo-ve away from certain types of dairy products? While prevailing advice advocates for low- or no-fat options to decrease saturated fat levels—and their impact on cardiac and overall health—President Donald Trump's administration plans to challenge this idea.

Scientists (and the public) have long grappled with this debate, with a recent report from *NPR* highlighting the data on both sides and some new, surprising insights. Indeed, the lead of a team of dietary experts pulled together to examine the evidence on dairy fat and its link to cardiometabolic health calls the argument against high-fat dairy "circumstantial."

"We don't have the strict and rigorous evidence opposing the two types of dairy and their effect on health," says Benoît Lamarche, director of the Nutrition, Health and Society Center in Quebec.

Not sure which advice to follow and which is udder nonsense? Opt for science-backed claims and customizing your dairy intake to work with your individual nutrition needs. After all, it's just one part of a balanced diet, and as such needs to be considered in the overall dietary context.

Live Long and Prosper: Eat the Mediterranean Diet

Can we eat our way to heart health, weight loss, and longevity? The famed Mediterranean diet seems to offer bite-sized and measurable moves toward health and well-being

The plant-based plan favors fresh, whole vegetables, fruits, and legumes, along with fish and olive oil, versus the traditional, Western meat-centric diet, which is heavy on saturated, animal-based fats, processed foods, sugars, fast food, and processed carbohydrates.

In 2025 alone, several studies have confirmed some of the positive benefits of the Mediterranean diet:

- Better brain health
- Lower risk of cancer
- Lower blood pressure
- Decreased risk of chronic constipation

A recent podcast from the *In Conversation* series of *Medical News Today* highlights the extensive and growing body of evidence linking a Mediterranean diet to a longer, healthier life, and offers tips on how to make your own diet more nutritious as you continue your journey through life.



Connect the Dots

Medical Assistants Transition from the Classroom to the Clinic

By Brian Justice

The first major hurdles of a medical assistant's career are usually cleared after a year or two. Settled into the routines, atmosphere, and pace of a satisfying job, medical assistants may begin to question what comes next. The next stage is one in which their experience, emotional intelligence, and professional development can make them invaluable in helping clinicians manage their practices and patients manage their health.¹

Learning as You Go

Medical assistants learn early on that patients' unpredictable behavior often upends their training's clearly defined protocols and scenarios and that emotional intelligence is as crucial as clinical accuracy.²

"In a real clinic, things happen in real time, and applying classroom knowledge to patients can be overwhelming but exciting," says Rita DeVaul, BA, CMA (AAMA), lead medical assistant in the orthopedics department at Detroit-based Henry Ford Health. "After learning that not every patient presents exactly as in textbooks, [we understand that] their complex histories or unexpected reactions require quick thinking, and that's a big transition, but medical assistants adapt

with hands-on experience."

"Patients aren't scripted," adds Amanda Spagnolo, MSN, RN, CNL, manager of medical group clinical education at Chicago-based Endeavor Health. "Medical assistants may have been thrown one or two curveballs in school, but a patient may throw them five. But they get used to it and apply what they learned in the classroom to real-life patients."

That includes developing sensitivity to tone and body language, learning to spot early signs of patient distress and adjusting communication styles accordingly, and recognizing that negative interactions may be rooted in fear or discomfort. Do not be discouraged though. Making patients feel seen, heard, and cared for fosters an emotional intuition that can establish trust and inspire calm from the earliest moments of an interaction.²

"When you truly listen to the reasons behind a patient's difficult behavior, you realize that ... often they are scared, tired, in pain, or just don't understand," says Abby Thomas, CMA (AAMA), a workers' compensation representative for Keystone RV in Milford, Indiana. "Don't take it personally. Remember that they're there for help."

Your Turn

The health care industry is constantly changing, and early-career medical assistants, however comfortable and confident they may be in their work, must also be adaptable. As the role evolves from support to active participation in delivering care, medical assistants will increasingly work as part of dynamic care teams. They must understand their own responsibilities and how their work fits into a larger, coordinated effort that includes physicians, nurses, and administrative staff.³

"The biggest surprise for some new hires was how hands-on the work here is, but as they become comfortable with the workflow, they gain confidence and enjoy being more involved in actively contributing to clinical care," says Lynn Le, CMA (AAMA), lead clinical assistant for the SouthEast Alaska Regional Health Consortium in Juneau, Alaska. "We expect our medical assistants to perform everything within our scope of practice, including whatever our [physicians] are comfortable delegating. So, if you're not 100% confident in something, ask. It shows you care about doing it right."

Nevertheless, confidence is shaky within the American workplace. In fact, many workers report experiencing imposter syndrome, particularly in health care,⁴ and this issue

is more prevalent among women (about 35%) than men (about 30%).⁵ But medical assistants should not let self-doubt prevent them from realizing their potential.

“I thought I’d be great right away because of my grades, but I had to grow through real-time feedback and adjust my expectations,” remembers James Kelly, CMA (AAMA), a certified medical assistant at St. Luke’s in Blue Springs, Missouri. “I’m still learning. I still ask providers and nurses to walk me through medications or techniques I’m unsure of. Nobody judges you for caring enough to ask.”

Strategies for boosting workplace confidence include completing high-visibility assignments, seeking mentorship, and speaking up in meetings. More private and simple tactics include avoiding comparing yourself to others and practicing positive self-talk. Together, these actions can foster a confident approach to advancing one’s career path.⁵

“Stay open to new ideas and feedback, learn from mistakes, don’t be afraid to ask questions, and watch others. That’s how to grow in this career,” advises April Jones, CMA (AAMA), a medical assistant with MetroPartners OBGYN in Mendota Heights, Minnesota. “Just give yourself a little grace and understand that confidence takes time.”

A Multiplayer Experience

Almost half of health care workers (46%) reported feeling burned out in 2022, up from less than one-third (32%) in 2018.⁶ To fight that feeling, build strong connections with colleagues and set boundaries between personal emotions and clinical responsibilities.⁷

“There are going to be a lot of times

Leading by Learning

The only constant in health care is change. While medical assistants’ initial education provides the necessary foundation, these forms of ongoing development play a crucial role in maintaining high standards and advancing their careers:

Keep pace with knowledge. Staying up to date on medical terminology, medications, and advanced clinical practices enhances the ability to support physicians, communicate effectively with patients, and manage complex medical situations. It also helps ensure ongoing compliance with changing regulatory policies around safety and quality of care.⁸

Keep up with technology. Technology is advancing rapidly in all areas, particularly health care. Medical assistants who pursue ongoing education in digital tools and high-tech medical devices can be indispensable as technological literacy becomes increasingly essential; those who embrace it can adapt quickly to new systems as they are introduced.⁸

Keep track of opportunities. Training certifications in health care management, coding, or specialty care can qualify medical assistants for supervisory positions, more specialized clinical roles, and drive increased job satisfaction.⁸

When medical assistants are well-trained and up to date, it is evident in the care they provide for patients. Communicating clearly, anticipating needs, and supporting treatment plans all help build trust and create a better experience for patients. Ongoing education also helps medical assistants identify potential issues early, respond promptly, and maintain a safer and more supportive health care environment for everyone.

when managing difficult patients or tasks may be overwhelming,” says Heather Baltzer, ambulatory manager for the clinical education program at Jefferson Einstein Hospital in Philadelphia, Pennsylvania. “Expect the unexpected and approach those things with compassion and empathy, and classroom skills will continue to support you in the real-world environment.”

Ahead of the Game

Maintaining a sense of purpose in a demanding clinical setting is crucial for fostering meaningful interactions with employers, supervisors, colleagues, and patients. Appreciating the value of team success and positive outcomes will help sustain motivation in the face of heavy workloads and challenging schedules. Medical assistants whose early careers are established on solid ground are well-suited to assume ever-higher levels of responsibility and expand what is,

first and foremost, their primary goal: continually improving patient care. ♦

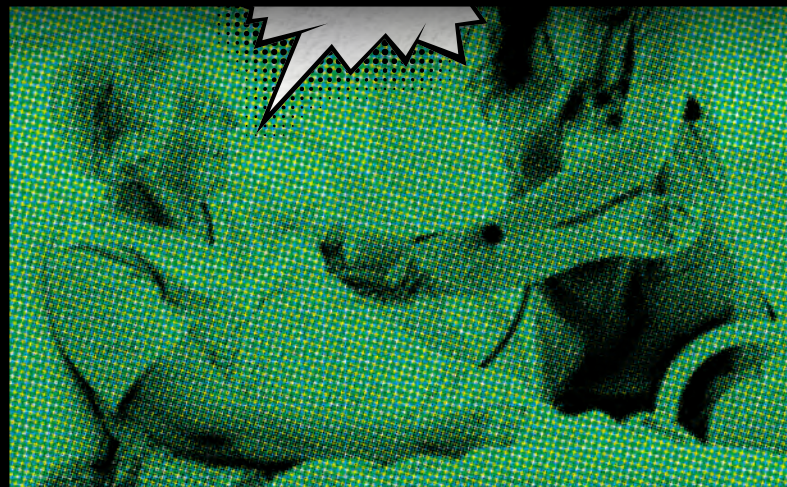
References

1. Jones S. Four ways medical assistants can lead the charge in care transformation. National Healthcareer Association. October 2024. Accessed October 15, 2025. <https://info.nhanow.com/learning-leading-blog/4-ways-medical-assistants-can-lead-the-charge-in-care-transformation>
2. Figueroa Gray M, Coleman K, Walsh-Bailey C, Girard S, Lozano P. An expanded role for the medical assistant in primary care: evaluating a training pilot. *Permanente J.* 2021;25(4). doi:10.7812/TPP/20.091
3. The role of medical assistants: growth, opportunity & challenge. National Healthcareer Association. October 2024. Accessed October 15, 2025. <https://info.nhanow.com/learning-leading-blog/the-role-of-medical-assistants-growth-opportunity-challenge>
4. Huecker MR, Shreffler J, McKenry PT, Davis D. Imposter phenomenon. National Library of Medicine. Updated July 31, 2023. Accessed October 15, 2025. <https://www.ncbi.nlm.nih.gov/books/NBK585058/>
5. Castrillon C. Ten secrets to boost your confidence in the workplace. *Forbes.* October 15, 2023. Accessed October 15, 2025. <https://www.forbes.com/sites/carolinecastrillon/2023/10/15/10-secrets-to-boost-your-confidence-in-the-workplace/>
6. Health workers face a mental health crisis. Centers for Disease Control and Prevention. Updated October 24, 2023. Accessed October 15, 2025. <https://www.cdc.gov/vitalsigns/health-worker-mental-health/index.html>
7. Ekman E. Five ways to protect your well-being as a health care professional. Greater Good Science Center. December 3, 2019. Accessed October 15, 2025. https://greatertgood.berkeley.edu/article/item/five_ways_to_protect_your_wellbeing_as_a_health_care_professional
8. Noorani S. Why do medical assistants need ongoing education? July 23, 2024. Accessed October 15, 2025. <https://www.healthtechacademy.org/medical-assistant/why-medical-assistants-need-ongoing-education/>



TO BE COM

Lifelong



By Cathy Cassata

The rapidly changing nature of health care comes with many uncertainties. And as new regulations, research developments, and technologies emerge at a rapid pace, health care professionals must keep their knowledge current through continuing education (CE).

“[Continuing education] isn’t just [needed for] hot-button topics like reproductive care that are changing rapidly due to regulations; it is also [for] how we treat common conditions like hypertension, dia-

betes, and obesity,” says Ben Reinking, MD, pediatrician and development coach.

As advancements reshape how health care providers practice, patients are also becoming more informed—and sometimes misinformed—through internet searches and artificial intelligence (AI) tools.¹

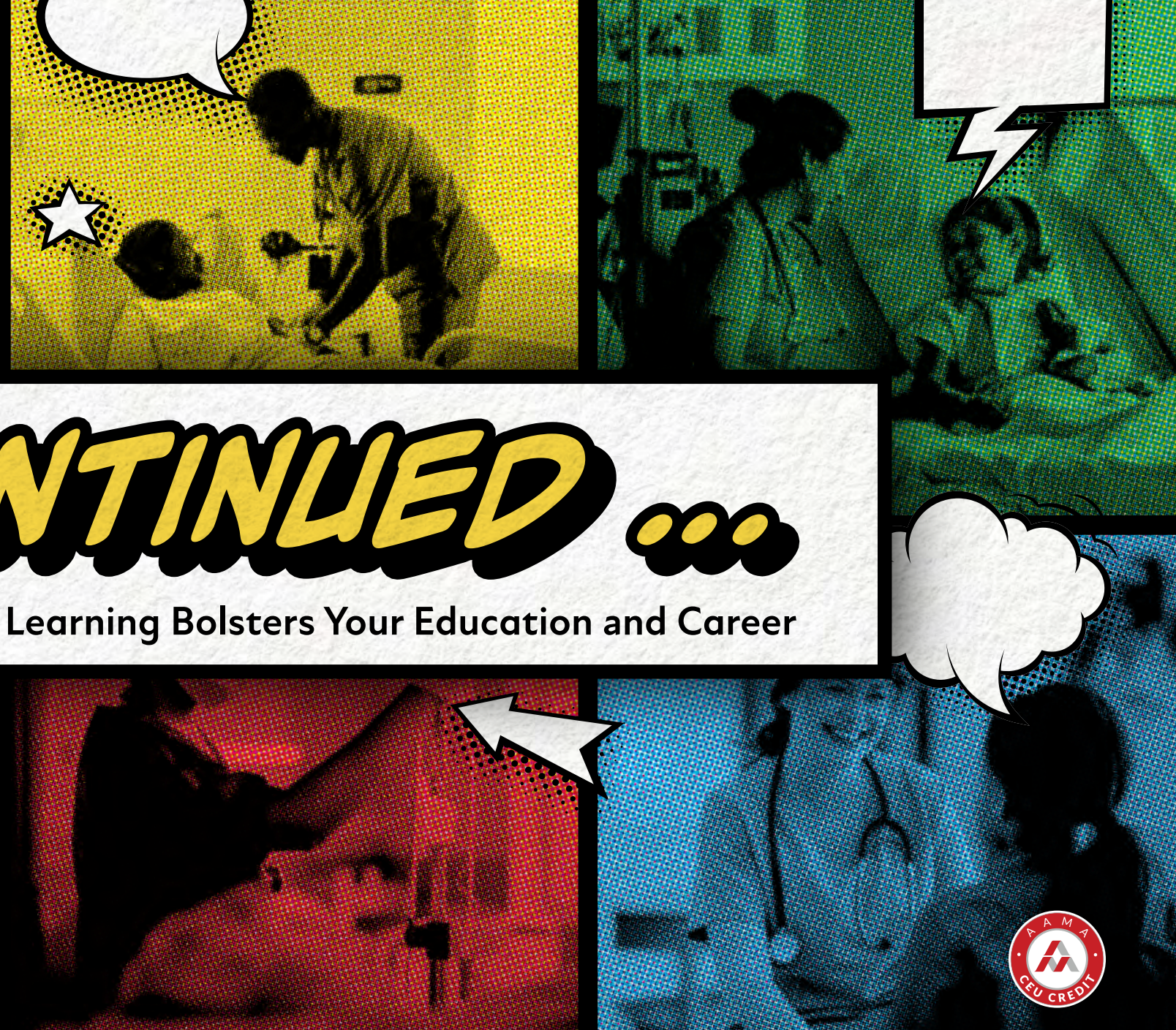
Helping patients make sense of the overwhelming amount of information they have at their fingertips is more crucial than ever for health care professionals, notes Dr. Reinking. For instance, nearly 9 out of 10 adults in the United States struggle with health literacy, according to the Center for

Health Care Strategies.²

Keeping up with their own medical knowledge is one way health care providers can ease the burden. “Staying current isn’t a luxury; it’s a necessity,” says Dr. Reinking. “It ensures that we’re giving patients the best care possible and helping them navigate this new information landscape with clarity, empathy, and trust.”

PAGE THROUGH PRO PERKS

While complying with requirements for keeping credentials current, health care



CONTINUED ...

Learning Bolsters Your Education and Career

professionals who complete CE earn other professional benefits:

CE improves your patient care. For Shannon Richardson, CMA (AAMA), who has been a medical assistant for 30 years, keeping up with CE helps her connect with patients.

“As a medical assistant, you’re often the first point of contact for patients, and your knowledge, confidence, and demeanor directly affect their experience,” she says. “CE empowers you to stay sharp, adapt to change, and bring your best self to every patient interaction.”

Nick Mickowski, director of continuing education and membership at the American Association of Medical Assistants (AAMA), shares specific examples of how knowledge can help support better patient outcomes. First, he points to the issue of human trafficking. Up to 88% of trafficking victims access health care during trafficking situations, yet not all health care professionals know how best to help them.³ “A medical assistant who has completed training on human trafficking prevalence, indicators, patterns, and resources for those experiencing human trafficking will be better suited to recognize

and assist such victims in the health care setting,” says Mickowski.

Another example involves pediatric patients with autism spectrum disorder (ASD) who arrive for a routine checkup. Research shows that youth living with ASD are less likely to receive preventive services such as vaccinations, even though they see their providers often.⁴ A medical assistant who has completed CE on the topic of ASD in children may be able to better support the patient’s visit and facilitate appropriate care, observes Mickowski. “The training could help the medical assistant have a better understand-



ing of communication and sensory-friendly strategies that ensure the patient is able to receive the best care possible,” he says.

CE makes you a more valuable employee. Engaging in continuing professional training or development may help workers to retain their current employment, according to a 2023 systematic review.⁵

During the 15 years that Jenny Wiedenhoft, CMA (AAMA), has worked as a medical assistant, she has learned that keeping up with CE makes her more valuable to employers. “If you can’t keep up with changes or refuse to learn to do new things, then you’re not going to be valuable to the company [that] hired you,” she says.

For example, CE can minimize the risk of negative outcomes in the health care setting, notes Mickowski. Consider training on cyberattacks, ransomware, and phishing scams. “As scammers get more sophisticated in their methods, health care professionals need to be aware of the types of scams that may seek to gain access to sensitive information,” he says. “A training on such methods can help medical assistants remain vigilant and avoid headaches and potential damages associated with a breach.”

Richardson recalls a colleague who completed CE about telehealth during the early stages of the COVID-19 pandemic and was able to quickly transition into a virtual care role. “Because of this timely knowledge, they not only ensured continuity of care for patients but also became a resource for other staff learning the system—leading to a promotion to a telehealth coordinator role,” she says.

CE leads to advanced opportunities. Keeping up with her certification created new career opportunities for Wiedenhoft, including a role on a clin-

COVER CE REQUIREMENTS

CE requirements vary by certifying organization. For CMA (AAMA) certification, 60 CEUs are needed from the following categories:

- 10 administrative
- 10 clinical
- 10 general
- 30 from any combination of the above

“A maximum of 30 non-AAMA CEUs may be applied towards your recertification application. You can upload non-AAMA CEUs at any time during your certification period for review and approval,” says Nick Mickowski.

ic’s medical assisting advisory board as a contract employee to help students prepare for their practicums. This role led to her latest job as a medical assisting educator. “Most of the people who come into the medical assisting field and embrace it as a profession are lifelong learners,” she says. “Things do change, and keeping up can keep your mind young and improve your knowledge overall.”

Health care always offers room for growth, stresses Dr. Reinking. He finds that CE can help medical assistants gain the confidence to further their education and advance their careers.

“While those steps may seem big, they all begin with small, consistent investments in learning like continuing education,” he says.

CHARACTER ARCS

Aside from the professional benefits of CE, learning reaps personal benefits:

CE feeds the desire to learn. Learning about various topics can reignite the curiosity that initially sparked your interest

in medicine. “The excitement of learning something new and applying it to real-life care reminds us why we chose such a challenging profession,” says Dr. Reinking.

Learning about different topics can also lead you to a professional niche or passion that fulfills you personally. Perhaps you take a course on diabetes care coordination or the unique health care needs of older patients and decide to work in those

specialties. “Quality continuing education can expose you to new ideas and outlooks that will enrich your [experiences],” says Mickowski.

CE provides a break from the day-to-day. CE opportunities allow employees to step outside the daily grind. “It’s not a vacation, but it is a break and a chance to use your brain differently, reflect, and often meet like-minded professionals who share your passion,” says Dr. Reinking.

It can provide the chance to grow beyond clinical knowledge. “Medicine is a science and an art. At the end of the day, it’s about people,” says Dr. Reinking.

Communication, leadership, emotional intelligence, and goal setting are essential soft skills that can help you thrive in your career in the long term. “They’re what make the difference between burnout and fulfillment, between surviving and truly flourishing in medicine. Seek out CE opportunities that strengthen not just what you know, but how you lead, connect, and grow,” advises Dr. Reinking.

CE boosts confidence and reduces stress. The vast majority (94%) of respondents to an Indeed poll reported that confidence is “important” or “very important” to completing daily work, and 94% also said it is a major contributor to overall career growth.⁶

When Richardson

READING UP

Each health care profession has different requirements for CE or continuing medical education (CME). To find state-specific requirements for various health care positions (e.g., physicians, physician assistants, nurse practitioners, and registered nurses), visit the website of each state board governing each profession.

engages in CE, she feels more confident in her capabilities, which helps reduce stress. For instance, after completing a CE course on phlebotomy techniques and patient communication, she was able to perform blood draws more smoothly and calmly, especially for anxious patients. “Learning made me more effective. This not only improved the patient experience but also helped me feel more in control and less anxious during busy shifts,” she says.

Learning new skills like how to use an updated electronic health record system or gaining a deeper understanding of chronic disease management also makes Richardson’s everyday work more meaningful and less routine, “which can help prevent burnout and keep your passion for health care strong,” she says.

TEXTBOOK EXAMPLES

In April 2024, the AAMA launched an online tool to facilitate the submission of non-AAMA CEUs from CMAs (AAMA). You can upload non-AAMA CEUs at any time during your certification period for review and approval.

Since its launch, AAMA staff have reviewed thousands of non-AAMA CEU programs and gotten a crash course in the types of trainings medical assistants throughout the country are completing. Some common course topics include the following:

- Health Insurance Portability and Accountability Act of 1996
- Occupational Safety and Health Administration
- Fraud, waste, and abuse
- Cybersecurity
- Bloodborne pathogens
- Infection control
- Communication
- Vaccines
- Human trafficking

“We see an incredible variety of courses, and it is always interesting to see courses that help allied health professionals to be more knowledgeable when working with underserved communities,” says Mickowski.

Examples include “HIV Care and Sexual Health Assessment for American Indian and Alaska Native Patients” and “Hepatitis B Health Disparities in Refugee and Immigrant Communities.”

“We also see courses on rare diseases and the rare disease community, which help shed light on a group that can be overlooked and undertreated in the health care delivery systems of today,” says Mickowski.

VOLUMES OF OPPORTUNITY

Note: All continuing education used for recertification of the CMA (AAMA) credential must follow the policies of the CMA (AAMA) Recertification by Continuing Education Application.

Below are some common ways to find CE opportunities.

- The AAMA’s “Find CEUs” webpage
- The AAMA Annual Conference
- AAMA state societies and local chapters
- Your employer
- Employer-sponsored training

Below are some unique avenues for obtaining CE:

- Webinars and podcasts that have been approved for CE credits
- Schools with medical assisting programs
- State departments of health trainings

“I got CEUs from a local school online. Many communities have a technical school, and you don’t have to be enrolled there to take their CE courses,” says Wiedenhoef. While the classes may not be specifically geared toward medical assistants, she says you can learn from other health care providers who are taking the courses.

She considered taking courses about commonly misused drugs such as opioids, fentanyl, and marijuana. “Most of my working atmosphere was in a specialty. Learning about something like pain management or opioid dependence can carry over into caring for patients who might be dealing with this,” says Wiedenhoef.

And because she lives in a Spanish-

speaking community, she took a Spanish class.

Before taking any CE, she suggests asking your employer if it qualifies as professional development: “Just because it’s free, doesn’t mean it’s a good thing to take.”

Spending your precious resources of time, energy, and money on CE is a worthwhile endeavor—as is being selective on which CE to pursue. And whatever CE you choose, you and any patients you encounter will benefit greatly. ✨

The CE test for this article can be found on page 29.



References

1. Lu Q, Schulz PJ. Physician perspectives on internet-informed patients: systematic review. *J Med Internet Res*. 2025;26:e47620. doi:10.2196/47620
2. Health literacy fact sheets. Center for Health Care Strategies. March 2024. Accessed October 15, 2025. <https://www.chcs.org/resource/health-literacy-fact-sheets/>
3. Anthony B. *On-Ramps, Intersections, and Exit Routes: A Roadmap for Systems and Industries to Prevent and Disrupt Human Trafficking*. Polaris. July 2018. Accessed October 15, 2025. <https://polarisproject.org/wp-content/uploads/2018/08/A-Roadmap-for-Systems-and-Industries-to-Prevent-and-Disrupt-Human-Trafficking-Health-Care.pdf>
4. Cummings JR, Lynch FL, Rust KC, et al. Health services utilization among children with and without autism spectrum disorders. *J Autism Dev Disord*. 2016;46:910-920. <https://doi.org/10.1007/s10803-015-2634-z>
5. Shiri R, El-Metwally A, Sallinen M, Pöyry M, Härmä M, Toppinen-Tanner S. The role of continuing professional training or development in maintaining current employment: a systematic review. *Healthcare*. 2023;11(21):2900. doi:10.3390/healthcare11212900
6. Lewis L. Confidence at work: why employers should nurture this soft skill. Indeed. January 23, 2020. Accessed October 15, 2025. <https://www.indeed.com/lead/confidence-at-work>



Long COVID

Deadline: Postmarked no later than **January 1, 2026**

Credit: 2.5 AAMA CEUs (gen/clin) **Code:** 144837

Directions: Determine the correct answer to each of the following, based on information derived from the article.

- | T F | T F |
|---|--|
| <p>☐ ☐ 1. The official description of COVID-19 is “severe acute respiratory syndrome coronavirus 2,” or “(SARS-CoV-2).”</p> <p>☐ ☐ 2. The underlying and most common mechanisms that researchers are finding in long COVID are neurological damage, inflammation, and autoimmunity issues.</p> <p>☐ ☐ 3. <i>Long COVID</i> is defined as “a chronic condition that occurs after SARS-CoV-2 infection and is present for at least 3 months as a continuous, relapsing and remitting, or progressive disease state that affects one or more organ systems.”</p> <p>☐ ☐ 4. Because of better handling of patients with COVID-19 and advances in medical science, COVID-19 is no longer a significant threat to public health.</p> <p>☐ ☐ 5. There appears to be a correlation between higher cortisol levels and long COVID.</p> <p>☐ ☐ 6. The number of people who have had COVID-19 and subsequently developed long COVID is small, and therefore, long COVID is not a major public health problem.</p> <p>☐ ☐ 7. A symptom of long COVID is post-exertional malaise, in which patients experience extreme fatigue after minimal activity.</p> <p>☐ ☐ 8. Long COVID is much more likely to occur in patients who are 60 years of age or older.</p> <p>☐ ☐ 9. Statistics vary as to the number and percentage of people who have had COVID-19 who also have had, or currently have, long COVID.</p> <p>☐ ☐ 10. Increased public immunity from previous COVID-19 infections and from vaccines received have contributed to lower public health risks of COVID-19.</p> <p>☐ ☐ 11. The total worldwide deaths attributed to COVID-19 were between 3 and 4 million.</p> | <p>☐ ☐ 12. Graded exercise therapy is recommended for patients with long COVID.</p> <p>☐ ☐ 13. Another hypothesis of the cause of long COVID is that some persistent viral loads may be undetectable in a nasopharyngeal swab while hiding in other internal organs.</p> <p>☐ ☐ 14. Some people who have had initial COVID-19 but were asymptomatic have manifested long COVID symptoms months after their initial COVID-19 infection.</p> <p>☐ ☐ 15. One hypothesis of the cause of long COVID is that tissue damage from an initial COVID-19 infection can cause damage in other tissues of the body remote from the original site of the tissue damage.</p> <p>☐ ☐ 16. There is a reliable diagnostic test that reveals to clinicians that a patient has long COVID.</p> <p>☐ ☐ 17. There is no direct and complete cure for long COVID, meaning that treatment must often focus on symptom management.</p> <p>☐ ☐ 18. The Department of Health and Human Services Office of Long COVID Research and Practice has received a new round of federal funding and continues to make progress in its research on long COVID.</p> |

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The Value of CE

Deadline: Postmarked no later than **January 1, 2026**

Credit: 1 AAMA CEU (gen/admin) **Code:** 144838

Directions: Determine the correct answer to each of the following, based on information derived from the article.

- | | |
|---|---|
| <p>T F</p> <p>☐ ☐ 1. Continuing education for health care professionals is necessary for new and controversial topics—but not for common conditions such as diabetes.</p> <p>☐ ☐ 2. Participating in continuing education can spark an interest in a particular aspect or specialty of health care.</p> <p>☐ ☐ 3. Learning new skills through continuing education can help prevent burnout.</p> <p>☐ ☐ 4. Engaging in continuing education is important for medical assistants to be able to provide the best possible care for patients, such as appropriate care for patients in human trafficking situations.</p> <p>☐ ☐ 5. Youth who have been diagnosed with autism spectrum disorder are more likely to receive preventive health care services.</p> <p>☐ ☐ 6. Engaging in continuing education can only inhibit participants' confidence and increase stress because they realize how much they do not know.</p> | <p>T F</p> <p>☐ ☐ 7. Medical assistants can benefit from continuing education on topics such as cybersecurity and rare diseases.</p> <p>☐ ☐ 8. There is no correlation between professionals in a particular health care delivery setting having sufficient and accurate continuing education and the quality of health care provided to patients in that setting.</p> <p>☐ ☐ 9. Continuing education can equip health professionals to educate patients about medical issues and understand what information on the internet is reliable and accurate.</p> <p>☐ ☐ 10. There is no benefit to cultivating soft skills for medical assistants and patients.</p> |
|---|---|

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10. Total Free or Nominal Rate Distribution (Sum of 10a, 10b, 10c, 10d, 10e, 10f, 10g, 10h, 10i, 10j, 10k, 10l, 10m, 10n, 10o, 10p, 10q, 10r, 10s, 10t, 10u, 10v, 10w, 10x, 10y, 10z)	1,148
11. Total Paid Distribution (Sum of 11a, 11b, 11c, 11d, 11e, 11f, 11g, 11h, 11i, 11j, 11k, 11l, 11m, 11n, 11o, 11p, 11q, 11r, 11s, 11t, 11u, 11v, 11w, 11x, 11y, 11z)	21,326
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22. Total Free or Nominal Rate Distribution (Sum of 22a, 22b, 22c, 22d, 22e, 22f, 22g, 22h, 22i, 22j, 22k, 22l, 22m, 22n, 22o, 22p, 22q, 22r, 22s, 22t, 22u, 22v, 22w, 22x, 22y, 22z)	1,148
23. Total Paid Distribution (Sum of 23a, 23b, 23c, 23d, 23e, 23f, 23g, 23h, 23i, 23j, 23k, 23l, 23m, 23n, 23o, 23p, 23q, 23r, 23s, 23t, 23u, 23v, 23w, 23x, 23y, 23z)	21,326
24. Total Free or Nominal Rate Distribution (Sum of 24a, 24b, 24c, 24d, 24e, 24f, 24g, 24h, 24i, 24j, 24k, 24l, 24m, 24n, 24o, 24p, 24q, 24r, 24s, 24t, 24u, 24v, 24w, 24x, 24y, 24z)	1,148
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27. Total Paid Distribution (Sum of 27a, 27b, 27c, 27d, 27e, 27f, 27g, 27h, 27i, 27j, 27k, 27l, 27m, 27n, 27o, 27p, 27q, 27r, 27s, 27t, 27u, 27v, 27w, 27x, 27y, 27z)	21,326
28. Total Free or Nominal Rate Distribution (Sum of 28a, 28b, 28c, 28d, 28e, 28f, 28g, 28h, 28i, 28j, 28k, 28l, 28m, 28n, 28o, 28p, 28q, 28r, 28s, 28t, 28u, 28v, 28w, 28x, 28y, 28z)	1,148
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30. Total Free or Nominal Rate Distribution (Sum of 30a, 30b, 30c, 30d, 30e, 30f, 30g, 30h, 30i, 30j, 30k, 30l, 30m, 30n, 30o, 30p, 30q, 30r, 30s, 30t, 30u, 30v, 30w, 30x, 30y, 30z)	1,148
31. Total Paid Distribution (Sum of 31a, 31b, 31c, 31d, 31e, 31f, 31g, 31h, 31i, 31j, 31k, 31l, 31m, 31n, 31o, 31p, 31q, 31r, 31s, 31t, 31u, 31v, 31w, 31x, 31y, 31z)	21,326
32. Total Free or Nominal Rate Distribution (Sum of 32a, 32b, 32c, 32d, 32e, 32f, 32g, 32h, 32i, 32j, 32k, 32l, 32m, 32n, 32o, 32p, 32q, 32r, 32s, 32t, 32u, 32v, 32w, 32x, 32y, 32z)	1,148
33. Total Paid Distribution (Sum of 33a, 33b, 33c, 33d, 33e, 33f, 33g, 33h, 33i, 33j, 33k, 33l, 33m, 33n, 33o, 33p, 33q, 33r, 33s, 33t, 33u, 33v, 33w, 33x, 33y, 33z)	21,326
34. Total Free or Nominal Rate Distribution (Sum of 34a, 34b, 34c, 34d, 34e, 34f, 34g, 34h, 34i, 34j, 34k, 34l, 34m, 34n, 34o, 34p, 34q, 34r, 34s, 34t, 34u, 34v, 34w, 34x, 34y, 34z)	1,148
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49. Total Paid Distribution (Sum of 49a, 49b, 49c, 49d, 49e, 49f, 49g, 49h, 49i, 49j, 49k, 49l, 49m, 49n, 49o, 49p, 49q, 49r, 49s, 49t, 49u, 49v, 49w, 49x, 49y, 49z)	21,326
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70. Total Free or Nominal Rate Distribution (Sum of 70a, 70b, 70c, 70d, 70e, 70f, 70g, 70h, 70i, 70j, 70k, 70l, 70m, 70n, 70o, 70p, 70q, 70r, 70s, 70t, 70u, 70v, 70w, 70x, 70y, 70z)	1,148
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FLASH PASS



Medical Assisting Educator Blazes Accelerated Track for Students



By Cathy Cassata

After working as a paralegal and obtaining a bachelor's degree in political science, Jessica Balladares, RMA (AMT), decided to pursue medical assisting. In 2008, she started her career working in internal medicine, nephrology, and cardiology clinics.

In 2017, her alma mater Santa Fe Community College asked her to take on an adjunct faculty position. After two years of adjunct teaching, she began working full time as an educator and has been the academic program director for the last three years.

"Bringing well-qualified medical assistants into the health care field is essential, and my experience helps prepare students for real-world scenarios," says Balladares.

She spent a year developing an accelerated program with her colleague Toni Coffman, CMA (AAMA). They launched the program in 2023. Instead of taking three semesters to complete, the condensed program takes 18 weeks and includes eight classes divided into three blocks. Students also participate in practicum hours in an ambulatory care

setting. When they complete the program, students graduate with a certificate and are prepared to sit for the CMA (AAMA) Certification Exam. To date, the program has graduated 32 students, and 30 of these graduates have secured employment.

"We really wanted to make sure that the quality of education was still highlighted and students were going to come out with effective education and training—not just a fast course to get them out into the field, but something that they can actually pursue a career in," says Balladares.

Balladares and Coffman developed the program in response to the shortage of medical assistants across New Mexico. "We were hearing from our community partners who hire our students that they needed them to enter the field a little sooner," says Balladares.

She also wanted to accommodate the needs of students. "I noticed that students were dropping out or taking semesters off because they were losing interest or facing life challenges like childcare responsibilities or needing to work," she says. "They wanted to finish sooner so they could start their careers."

The program's setup also allows students to enroll more frequently. "When we offered [the program] in three semesters, we were only able to enroll students in the fall, so students who were interested in going into the spring semester had to wait. By that

time, many had moved on to other schools or lost interest," she says.

She is constantly working to improve the program and meet the demands of employers by getting their feedback on what additional skills medical assistants need to be trained in. "For example, a lot of our partnership employers said it would be helpful for students to have awareness of Narcan [naloxone] training, so we implemented that into our program. Others said they needed more administrative skills like checking in patients and navigating [electronic health records], as well as soft skills, including how to communicate with colleagues, time management, work ethic, and adaptability," says Balladares.

She takes pride in preparing medical assistants to meet the needs of today's employers and succeed in their careers. Her commitment to being the best educator and program director she can be has inspired her to complete a master's degree in education.

"It feels full circle to help new medical assistants flourish in their careers," says Balladares. "We have many employees who work at the school who get care from our graduates at a local clinic or hospital, and it warms my heart to hear how well they are doing. It also makes me excited to keep sending qualified medical assistants out into our community." ♦

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