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# Catholic Health World

Ascension completes phaseout of environment-harming anesthetic

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By DALE SINGER



## DESFLURANE AND THE ENVIRONMENT

- Only a small portion of inhaled anesthetics such as desflurane are metabolized by a patient. The remaining exhaled gases become waste emissions that are vented out of the hospital and into the atmosphere. These waste emissions are greenhouse gases.
- Compared to other anesthetics, desflurane has a much higher greenhouse gas warming potential. It also stays in the atmosphere years longer.
- Desflurane was phased out in February 2024 across all of Ascension.

Source: Ascension Environmental Impact and Sustainability Annual Report 2024

By abandoning the use of a drug designed to help heal patients but that harms the environment, Ascension hospitals hope to help heal the planet.

The culprit is desflurane, one of a family of anesthetics that has harmful environmental effects. [The American Society of Anesthesiologists](#) says that of all inhaled anesthetics, desflurane lasts the longest in the atmosphere — more than 14 years. In terms of greenhouse gases, it is 2,400 times more potent than carbon dioxide.

Comparatively, similar anesthetic gases such as sevoflurane and isoflurane have a much smaller impact on the environment.

Overall, federal officials say, health care is responsible for 8.5% of the nation's carbon emissions.



Aloia

Dr. Thomas Aloia, senior vice president and chief medical officer at Ascension, said such numbers made hospital officials take a hard look at possible action to ease any harmful effects, particularly from desflurane.

"I think over the past 10 years we've realized that it has an extremely outsized impact on the environment," he said. "All of these gases are unfortunately pretty inefficient, meaning the amount of gas that goes to the patient is much less than the amount that just escapes the system and leaks out into the environment."

Aloia said for sevoflurane and isoflurane the potential environmental effects are minor, but desflurane "can have an outsized impact on our ozone."

"We have the other two gases," he added. "They're perfectly safe, perfectly effective. Desflurane doesn't bring anything unique to the table. So we endeavored to eliminate it."

Planning for the desflurane phaseout began in 2022, with the actual initiative beginning a year later and the eventual elimination achieved this year.



VanOsdol

For Ascension overall, said Thomas VanOsdol, executive vice president and chief mission integration officer, desflurane is a small but key part of [a systemwide, multidisciplinary focus](#) and commitment to responsible environmental stewardship and caring for creation in the spirit of Pope Francis in his 2015 encyclical *Laudato Si' ... On Care for Our Common Home*.

"This year marks our 13th year of our overall environmental impact and sustainability program that will lead us toward our vision and our objectives for 2030 and 2040," he said. "The big goal in 2040 is to achieve net zero carbon emissions and net zero waste across all of our sites — effectively a net zero carbon footprint for Ascension, which is a significant aspirational goal."

## Health Care Without Harm

Other health care organizations also are phasing out the use of desflurane. Earlier this year, Providence St. Joseph Health [noted in a blog post](#) that it had "massively reduced its emissions from anesthetic gases like desflurane and nitrous oxide by 78%."

Efforts to eliminate the use of desflurane are applauded by Gwyneth Jones, associate director of sustainability solutions for the group [Health Care Without Harm](#). "If you're in a position where you are involved in taking action to reduce your emissions, which we hope everybody is, then it's a question of what's easier than the other things, right? What are the low-hanging fruit?" Jones said. "Our opinion is that anesthetic gases are relatively easy."

With suitable alternatives available, she added, stopping the use of desflurane is a sensible step to take, in terms of the environment as well as health.

"We're seeing a real movement of health care professionals — doctors, nurses, all sorts of clinical folks and nonclinical folks — who are coming to understand the role that health care plays in terms of negative effects on the environment from the emissions of the health care sector itself," she said. "When you work in health care, your primary mission is to care for and improve the health of your patients. So there's a realization that through the practices of how we provide health care, we sometimes are actually harming our patients."

That mindset is growing particularly among younger generations, Jones said.

"With millennials and Gen Z, there are lots of studies that show they're much more focused and aware and concerned about environmental impact as they take on more roles in the workforce," Jones said. "They're also pushing their organizations to have more of a focus on their environmental impact."

She noted efforts such as the international [Race to Zero](#) climate action campaign and other programs that are scientifically based. And, she added, they come at a time when health care is facing a range of challenges.

"The health care sector has a lot of financial constraints, especially coming out of COVID," Jones said. "It's cash-strapped in a lot of places. So there are a lot of challenges, a lot of competing priorities. Some folks are much more engaged in this work than others. The good news is that the number of folks engaged in this work and thinking about it is growing."

## Next steps from Ascension

At Ascension, Aloia said, the next target for easing environmental effects is nitrous oxide, the anesthetic commonly referred to as laughing gas.

"We're not looking to eliminate it but there are two different ways you can deliver it, and one of them has much less environmental impact," he said. "So it's more of a logistical change in the delivery mechanism. It is not an elimination effort, but we think it will have multiples more impact than the desflurane did."

He added that besides rethinking the use of anesthetics that may cause harm, other areas also are receiving attention.

"There are myriad opportunities for recycling of medical devices and other equipment and putting them in the proper receptacles that do engage our workforce and our frontline health care providers," Aloia said. "I would put that in kind of a large bucket of next-level concepts that are not going to run in series — they'll run in parallel."

Ascension has work groups that are addressing two other topics: waste diversion and healthy communities. VanOsdol said all three work groups are focused on "resiliency, environmental and health equity and community engagement."

## Working with health care partners

VanOsdol said Ascension isn't pursuing its climate initiatives alone. "We're working very closely with our partners across the Catholic Health Association in this work and sharing information broadly and have co-presented at various symposia, etcetera," he said.

He noted that Ascension also is a founding member of a consortium of U.S. hospitals called the Health Care Climate Council that is focused on environmental impact and sustainability.

Aloia said that as part of the Health Care Climate Council, Ascension has explicit goals through 2040. "We know we have to hit certain checkpoints on the way to those goals," he said. "We have a team that keeps the scorecard and keeps us visually and graphically aware of our progress."

VanOsdol added: "In each and every ministry market, in each community that we serve, we've organized green teams and environmental sustainability and stewardship teams that are responsible for affecting the work on the ground and ultimately making it all happen locally. This work is truly a joy, and it's yet another beautiful example of our commitment to live, operate and serve in fidelity to our Catholic ministry identity."

Aloia said there is one driver behind Ascension's environmental efforts. "This work is completely linked into our mission," he said, "because we know that any adverse environmental impacts will disproportionately affect vulnerable populations in our communities."

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