

The Smell of Diabetes

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In my everyday job as a research director, I work with endocrine fellows and staff on research. And because I have had type 1 diabetes since 1992, I also subtly look for teachable moments to promote a greater understanding about what it is like to live with diabetes. It is one thing to understand the treatments and textbook theory behind interventions and quite another to be the recipient of such health care measures.

One teachable moment recently occurred when I was sitting with three fellows and an endocrinologist at a colleague's retirement dinner. As a sugary dessert was being served, the junior fellow declared, "Ah, the smell of diabetes!" To which I quietly replied, "That's not the smell of diabetes." He turned to me with genuine curiosity and asked, "What is the smell of diabetes to you?"

"Insulin," I replied.

By now, the senior fellows and the endocrinologist were engaged. None of them had ever smelled insulin, so I invited them to come by my office and get a whiff. Each physician dutifully came by my office over the next week to "smell diabetes." They generally described the smell as antiseptic and medicinal.

When I related this story to the director of our Diabetes Center of Excellence, an endocrinologist with more than two decades of experience, he confirmed that he, too, had never smelled insulin. I was floored. How can you prescribe a medication and not be familiar with its properties?

I unplugged my insulin pump and waved the connector under his nose. He agreed that it was a distinctive odor. We then began to discuss the implications of recognizing the insulin scent. For patients on insulin pump therapy, smelling insulin may be a result of leakage from the tubing or reservoir (1,2). In addition to providers being able to identify the distinct odor of insulin, patients on pump therapy should know that the smell indicates a problem and could be related to unexplained hyperglycemia (3).

Some people with diabetes compare the smell of insulin to the scent of Band-Aids, printer ink, Lysol, or new plastic shower curtain liners (4). Apparently, phenols are responsible for the aroma associated with insulin (5). Phenols are used in many products and act as a disinfectant; they help to stabilize insulin because it is used over time in pumps or multiple injections.

Zimberoff (4) quotes Kelly Close, founder of the diaTribe Foundation, who said, "It's a pretty intense smell. I always think when I smell it that I'm so grateful to be living."

Insulin is the smell of diabetes and the smell of life for those of us who depend on it.

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<https://doi.org/10.2337/cd18-0010>

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Duality of Interest

No potential conflicts of interest relevant to this article were reported.

References

1. Saboo BD, Talaviya PA. Continuous subcutaneous insulin infusion: practical issues. *Indian J Endocrinol Metab* 2012;16(Suppl. 2):S259–S262
2. Strowig SM. Initiation and management of insulin pump therapy. *Diabetes Educ* 1993;19:50–58
3. Ponder SW, Skyler JS, Kruger DF, Matheson D, Brown BW. Unexplained hyperglycemia in continuous subcutaneous insulin infusion. *Diabetes Educ* 2008;34:327–333
4. Zimberoff L. What does insulin smell like? [Internet]. Available from <https://asweetlife.org/what-does-insulin-smell-like>. 10 October 2017. Accessed 15 February 2018
5. Nosowitz D. FYI: Why does scotch smell like Band-Aids? Also crude oil, Sharpies, synthetic insulin . . . [Internet] *Popular Science* 14 June 2012. Available from <https://www.popsci.com/science/article/2012-06/fyi-why-does-scotch-smell-band-aids>. Access 15 February 2018