Maryland
DEPARTMENT OF HEALTH

NALOXONE (AKA NARCAN)

beyond the basics

STORAGE & EXPIRATION

YOU CAN FREEZE AND HEAT NALOXONE AND IT'LL STILL WORK

Heating naloxone (to almost boiling) and freezing it does not change its effectiveness. *It is chemically the same after being in extreme temperatures!*

- Most medications are tested to ensure they can be stored at room temperature.
- Pharmaceutical companies do not have to test the storage temperature limits of each medication they make.
- An independent study of naloxone found that naloxone was unchanged by being heated to 176°F (or 80° C – almost boiling). It was also unchanged by freezing it and letting it thaw over and over.*

UNOPENED NALOXONE CAN LAST FOR 30 YEARS AFTER ITS EXPIRATION DATE

Expired naloxone has been independently studied and found to be effective – *even 30 years after it expired!*

- All medications are required to list an expiration date.
- Pharmaceutical companies do not have to test the full length of time their medications remain effective. They just need to ensure that the medication is still effective for the time period stated on the product (often 2 years from manufacture).
- An independent study found that naloxone remained effective even 30 years after its expiration date. The medication had 90-100% of the concentration as the original formulation. **

Independent studies of medication effectiveness can help save money and lives.

*bit.ly/temperature2019 | **bit.ly/expiration2019

*Lai, D., Pham, A. T., Nekkar Rao, P. P., & Beazely, M. A. (2019). The effects of heat and freeze-thaw cycling on naloxone stability. Harm reduction journal (Vol. 16, Issue 1, p. 17). PubMed Central. https://doi.org/10.1186/s12954-019-0288-4

**Pruyn, S., Frey, J., Baker, B., Brodeur, M., Graichen, C., Long, H., Zheng, H., & Dailey, M. W. (2019). Quality Assessment of Expired Naloxone Products from First-Responders' Supplies. Prehospital Emergency Care : Official Journal of the Natl Assc of EMS Physicians & the Natl Assc of State EMS Directors, 23(5), 647–653. https://doi.org/10.1080/10903127.2018.1563257

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NALOXONE IS SAFE TO USE.

- ***EVEN WHEN IT'S BEEN FROZEN***
- ***EVEN WHEN IT'S BEEN HEATED***
- ***EVEN WHEN IT'S EXPIRED***