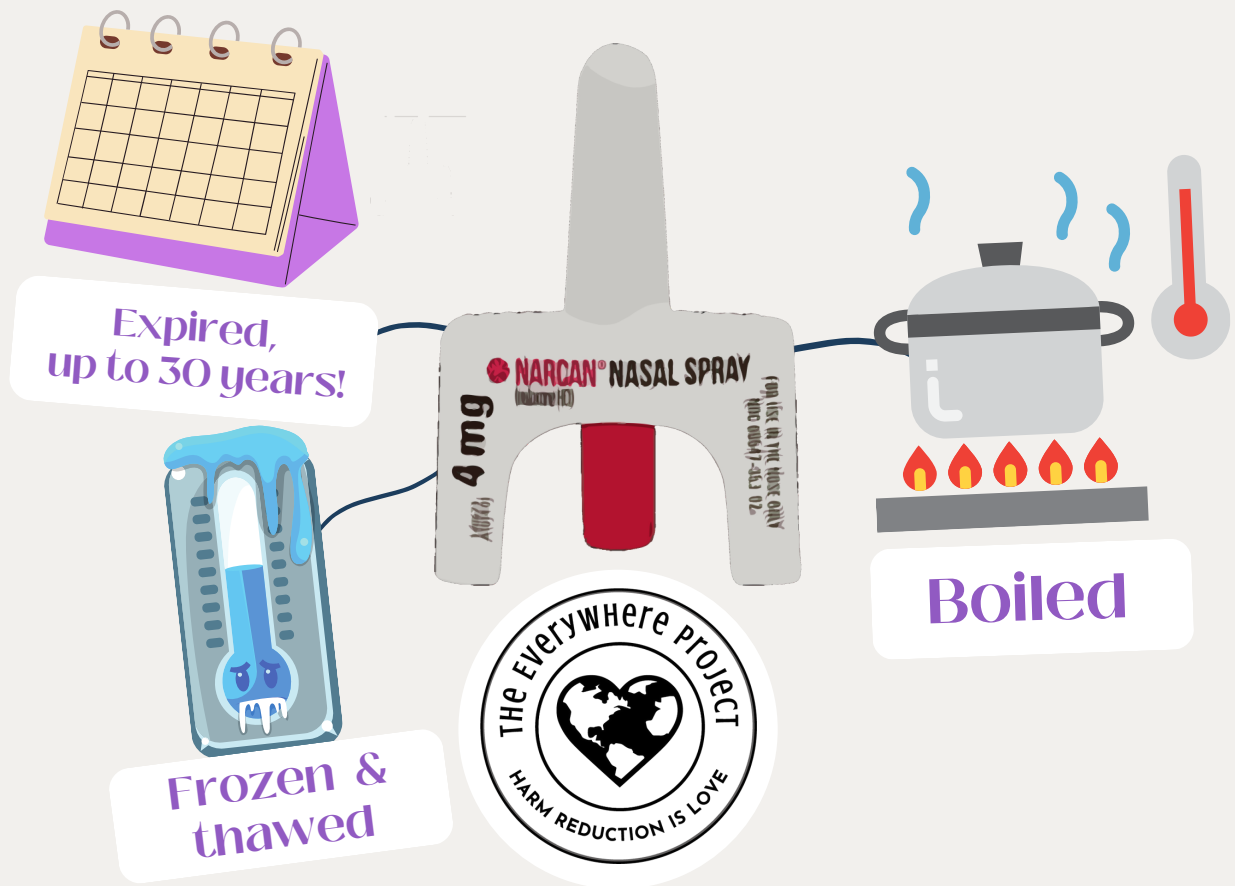


# Never throw away NALOXONE!

RESEARCH HAS SHOWN NALOXONE REMAINS EFFECTIVE  
(AND WITHIN REGULATORY STANDARDS) EVEN WHEN...



## SOURCES

### Results

Naloxone hydrochloride ampoules exhibit no changes in drug concentration following exposure to heat or freeze-thaw cycles for up to 28 days compared to ampoules maintained at room temperature (as indicated in the product monograph).

**Results:** Most tested samples were found containing more than 90% of labeled naloxone, including those stored for nearly 30 years. The naloxone degradation was slow, but generally correlated with storage time length. There was no significant amount of degradation products detected across all samples. Nornaloxone was detected from some

Schuyler Pruyin, Justin Frey, Benjamin Baker, Michael Brodeur, Carla Graichen, Heather Long, Haian Zheng & Michael Winter Dailey (2019) Quality Assessment of Expired Naloxone Products from First-Responders' Supplies, Prehospital Emergency Care, 23:5, 647-653, DOI: 10.1080/10903127.2018.1563257

Lai, D., Pham, A.T., Nekkar Rao, P.P. et al. The effects of heat and freeze-thaw cycling on naloxone stability. Harm Reduct J 16, 17 (2019). <https://doi.org/10.1186/s12954-019-0288-4>