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Day 04 Feb 03 Chemothermal sensation.
Properties of gases.

Fire and Ice

1-1-2016

4.0.E Posters Thermal Sensation

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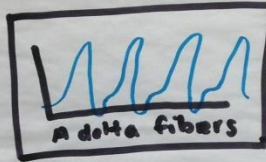
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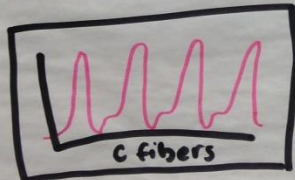
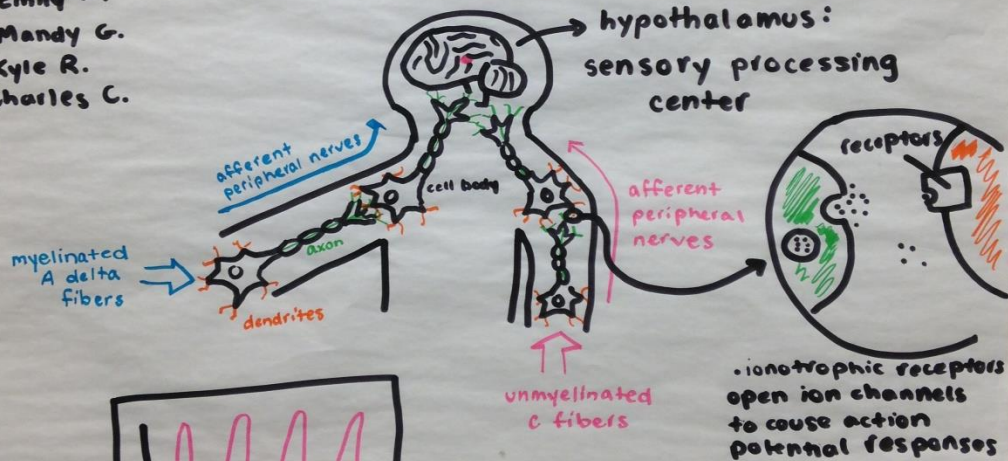
Extreme Cold



• in temperatures below 10°C , pain receptors produce a freezing sensation



Jake S.
Emily D.
Mandy G.
Kyle R.
Charles C.



• in temperatures greater than 45°C , pain receptors produce a burning sensation

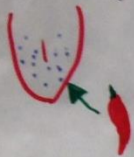
Extreme Heat



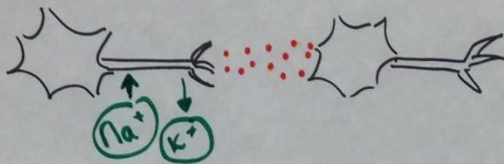
Christopher F. Bauer, Principal Investigator. This material is based upon work supported by the National Science Foundation under Grant No. 1245730. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. Licensed:

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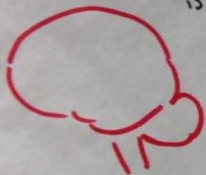
① Thermo receptors on the tongue respond to capsaicin in chilli pepper



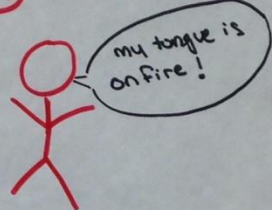
② Message is transported to CNS via action potentials along sensory neurons.



③ Hypothalamus receives sensory information and interprets it as heat. Message to respond is relayed back to peripheral neurons.



④ You recognize the sensation as heat. You may sweat because your body is tricked into thinking it is too hot.



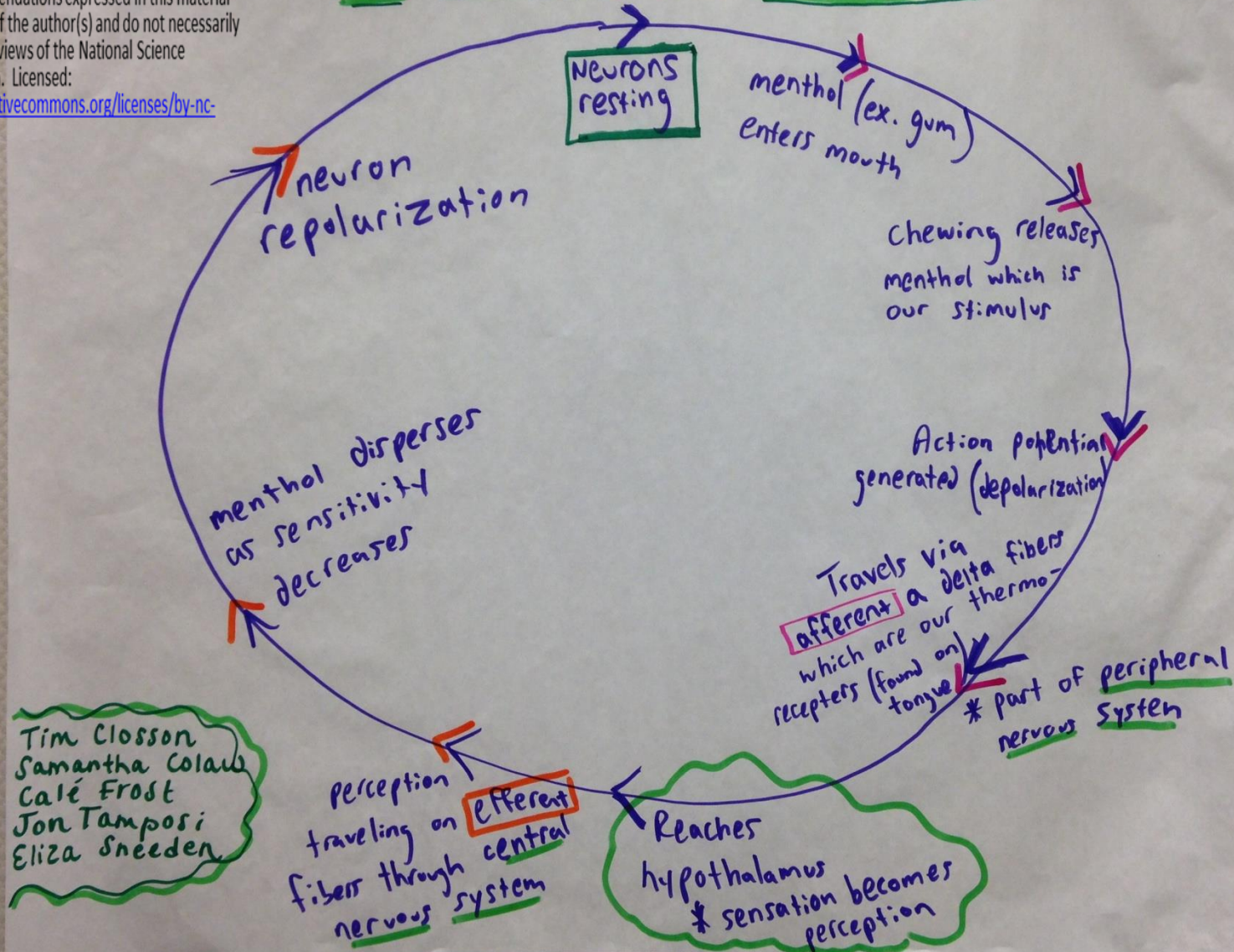
How the Body Responds to Capsaicin

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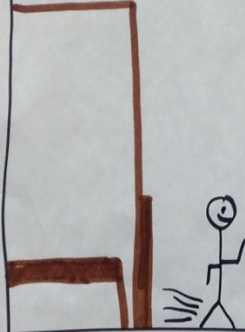
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THE EFFECT OF MENTHOL



Tim Closson
Samantha Colau
Calé Frost
Jon Tamposi
Eliza Sneider

Sauna



Ruffini's end organ



(Heat)

- Thermoreceptors increase their action potential discharge which causes unmyelinated c-fibers to fire
- This is in order to protect the skin and tissues, however receptors still cause you to feel really hot.
- Thermoreceptors decrease in warm receptor discharge rate and thinly myelinated A delta fibers fire faster in order to protect the skin and tissues.

End-bulb of Krause



(Cold)

Emma Addison
Katelyn Zukowski
Taylor Witkiewicz
Homer Price
Amanda Jensen

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