NEWSLETTER
from JoR Measurement I www.jor.se

Pain from heat or cold nociceptors

Pain is an experience in the brain that is very complicated and where research is ongoing to understand which parts of the brain are involved.

Pain is normally caused by nerve signals from the body's pain neurons that detect threats to tissue (nociceptive pain) but sometimes it can be due to nerve damage or other complex processes in the brain or inflammation that can modulate pain experience and thresholds.

As for nociceptive pain, there are two types of pain nerves that detect the effects that can cause tissue damage. Aδ nerves are thick isolated (myelinated) and typically give rapid sharp pain. C-nerves are thinner uninsulated and give more diffuse dull pain. The different types of stimuli that can cause tissue damage are certain substances (chemical receptors), mechanical pressure (mechanical receptors) and cold/heat (thermoreceptors).

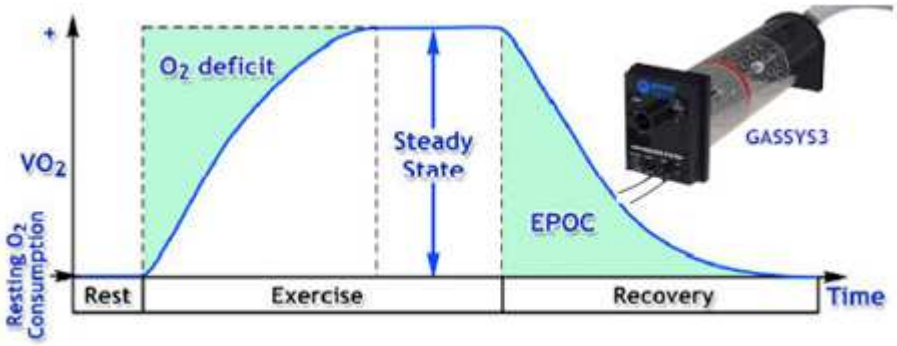
STMTHERM – NEW PRODUCT

If you want to deliever pain to subjects from heat or cold by stimulating thermoreceptors on the skin then BIOPAC now has a completely new stimulator which is based on a plate and a fan where you with an analog control signal (+/- 10V) can make it either hot or cold. The voltage determines whether it cools or heats. Works with both MP160 (or MP150) and Biopac Student Lab.

The stimulator can also be supplemented with a temperature sensor **TSD202A** and **SKT100C** amplifier to measure the exact skin temperature during stimuli.

Read more »

GASSYS3 – NEW PRODUCT



A new improved version of our gas analyzer for measuring CO2 and O2 in exhaled air, including the following improvements:

- CO2 sensor that now measures up to 10% CO2 for VO2 Max measurements
- integrated heater and fan that prevents condensation on the sensors inside the chamber and reduces mixing time and reduces response time
- integrated sensors for temperature and pressure both inside and outside the chamber
- closer chambers prevent ambient air from affecting the measurement between the breathing cycles

Read more »

Join the Biopac T4 Human Physiology Conference in California!

12-14 Aug 2019 @ University of California, Santa Barbara, USA

Learn best practices and techniques from experts in major research areas

Read more and sign up »

Don't hesitate to contact us at **biopac@jor.se** with a short description of your situation and we are happy to give you tailored advice!

We also have research systems with more features.

Skulle du föredra att få dessa nyhetsbrev på svenska i fortsättningen?
Skicka ett mejl till **biopac@jor.se** och meddela oss.

JoR AB Knivsta/Försäljning/Service: 018-34 28 20, **biopac@jor.se**

Välkommen in på vår hemsida: **http://www.jor.se/measurement**

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