



THERMAL EYELID MASSAGE

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The Invention

A UW-Madison clinician has developed a bean-shaped roller with an integrated heating element for treatment of meibomian gland dysfunction (MGD). The roller rotates towards the lash line to massage the glands properly. The heating element of the device is a nickel chromium (nichrome) wire which heats the surface temperature of the device to 43°C to properly phase transition the meibum, allowing it to flow. A 6 N compressive force normal to the eyelid across the geometry of the bean roller will be applied to the eyelid to sufficiently compress the glands to express the meibum. These parameters should be sufficient to adequately heat and compress the glands, effectively treating MGD. The wearable device would include a ski goggle-type frame and four rollers to cover both the upper and lower eyelids for each eye.

Tech Fields

- [Medical Devices : Other medical devices](#)

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867