

Appendix D

Infrared Epilepsy Group Images

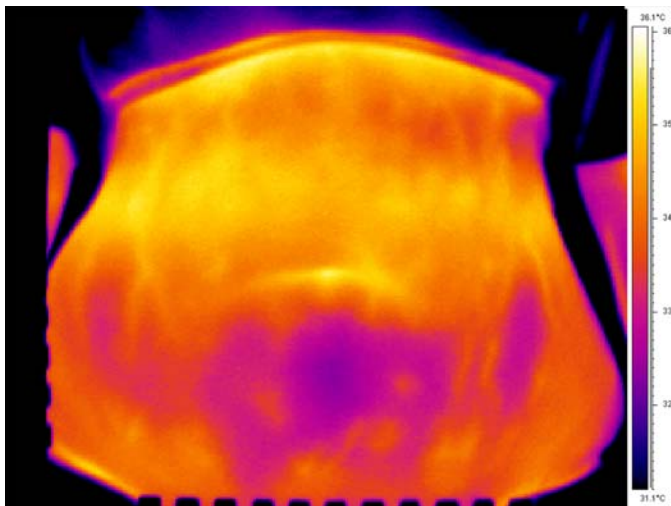
This appendix contains representative images collected from the epilepsy group of participants. These images are provided in this format to graphically illustrate the variability of abdominal thermal features in epileptic individuals.

As with the control group, each set of images consists of a baseline image taken when the participant first entered the room and bared the abdomen, a second image after 20 minutes of equilibration at room temperature (between 18-23 degrees C.), and a third image following an alcohol swab of the abdomen as described in the methods section of the infrared thermography portion of the report.

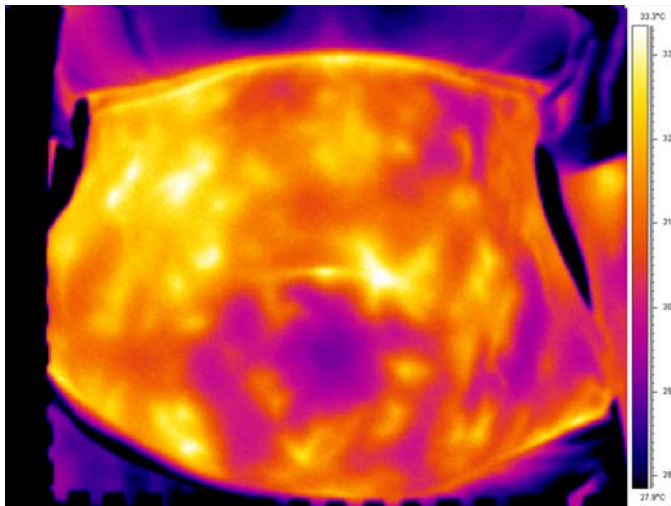
The temperature range (and thus the coloration) for each image was obtained using the software's "auto adjust scale" feature which automatically selects the optimal thermal range for each image. The temperature scale for each image has been included so that viewers can get a sense of the relation of the colors with actual temperatures. Also note the presence of the centimeter scales included at the left and bottom of each image to provide a relative spatial scale for the image.

Background information for each participant is provided to the right of each set. Note that some of the participants do not fit the profile for "true" (idiopathic) epilepsy.

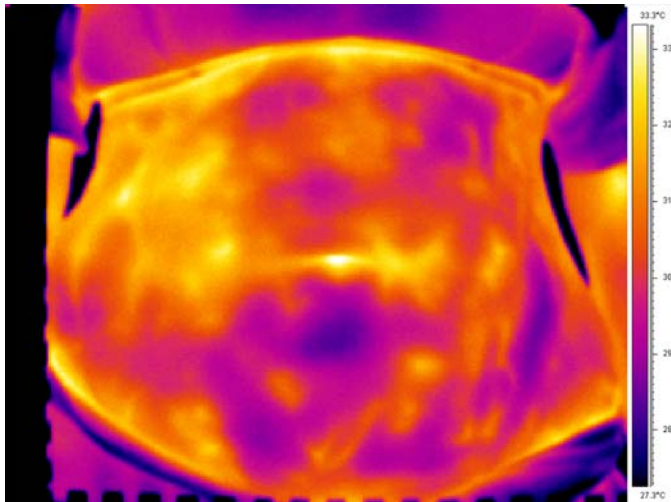
Our basic finding for this group is that there is considerable variability of abdominal thermal features as indicated by the images in this appendix. However, there does not appear to be a *consistent* cold spot on the right side of the abdomen in this epilepsy sample for the "possible true epilepsy" participants.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

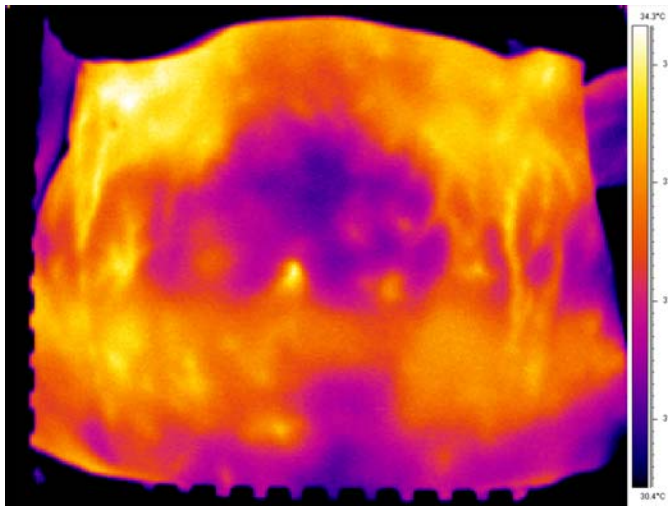
Epilepsy Participant #11

Participant: E-11, female, age 42

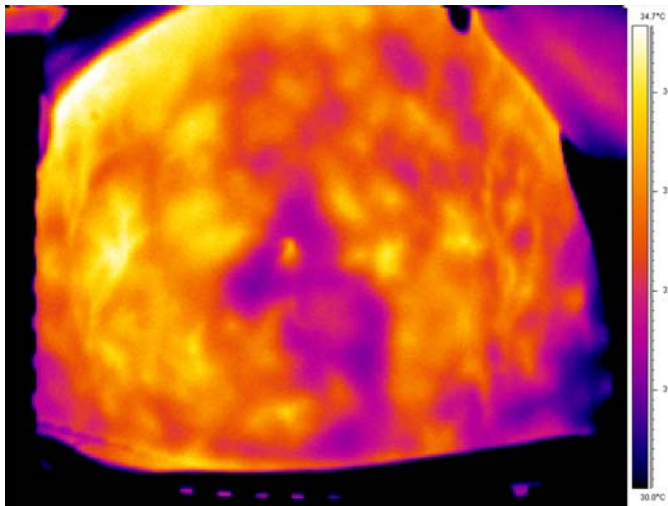
Type of Epilepsy: Complex partial (“absence seizures”)

Onset of Seizures: Onset at age 21 following encephalitis

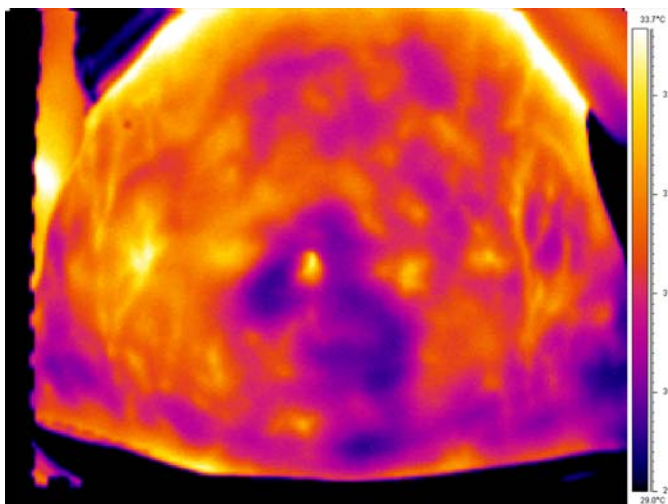
Comments: Cold spot directly under navel at 20 minutes, probably not “true epilepsy” due to known etiology.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

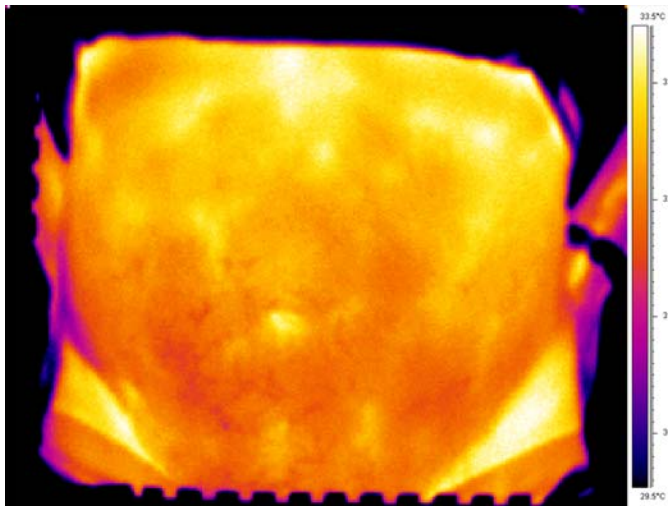
Epilepsy Participant #12

Participant: E-12, female, age 52

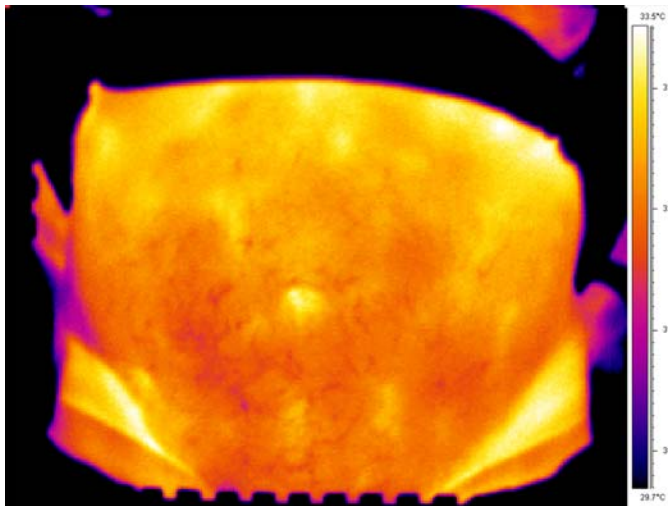
Type of Epilepsy: Complex partial with possible hormonal trigger

Onset of Seizures: Onset at age 13, which was also beginning of menstruation

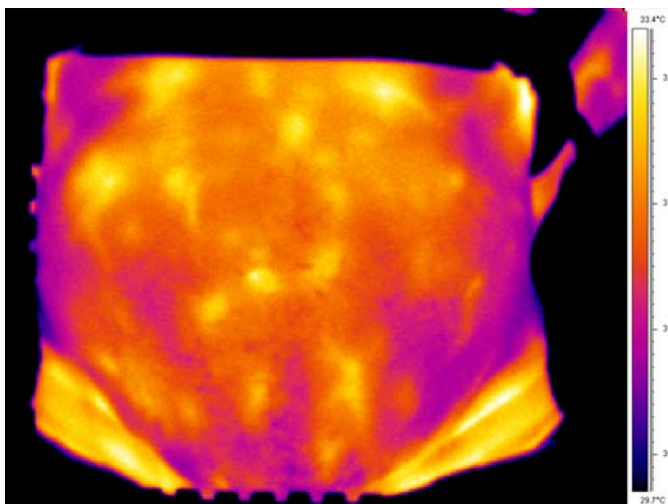
Comments: Possible “true epilepsy” with cool spot in lower right quadrant at 20 minutes



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

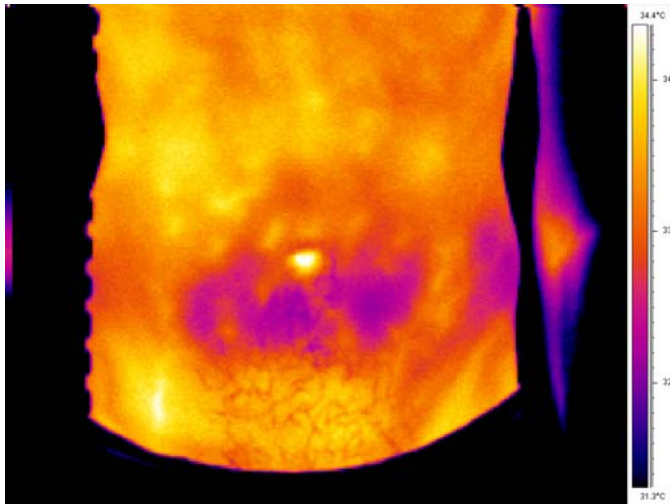
Epilepsy Participant #13

Participant: E-13, male, age 72

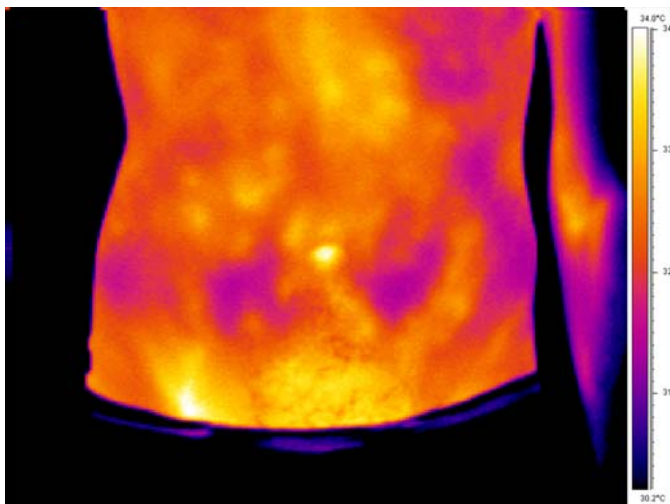
Type of Epilepsy: Complex partial

Onset of Seizures: Onset at age 62

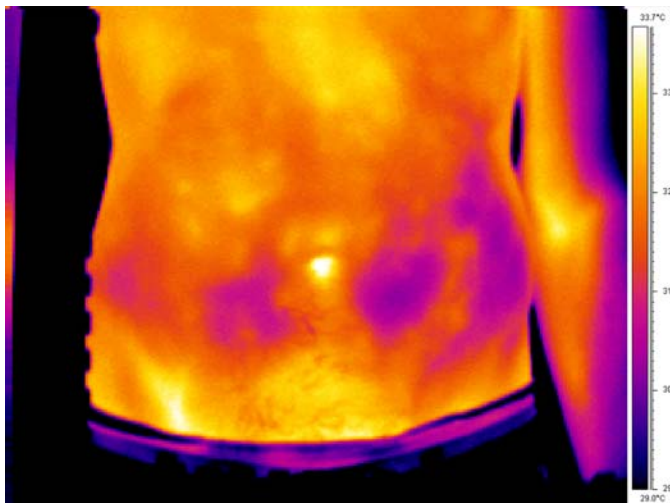
Comments: Participant claims that seizures are caused by anxiety, probably not “true epilepsy” due to late age of onset and peculiar etiology; some coldness in lower left quadrant at 20 minutes



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

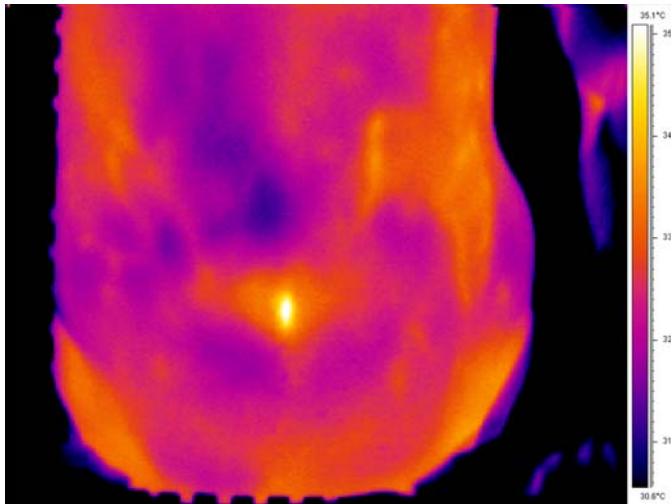
Epilepsy Participant #14

Participant: E-14, male, age 50

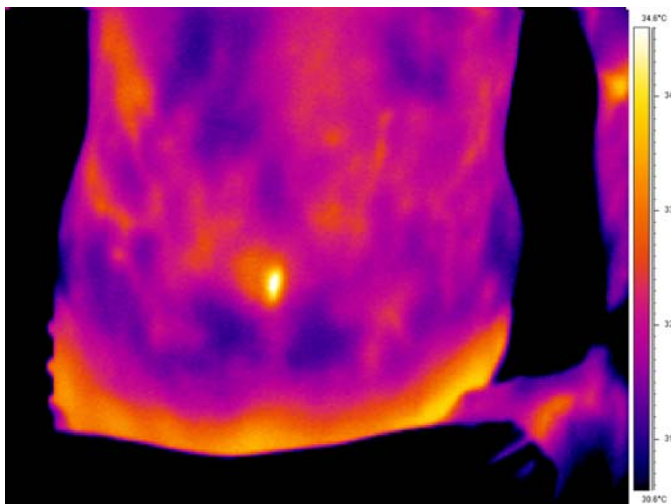
Type of Epilepsy: 345.91 epilepsy, NOS with intractable epilepsy

Onset of Seizures: Participant reports that he has been told by father that he was taken to hospital at 6 months of age and took seizure medication until age 4

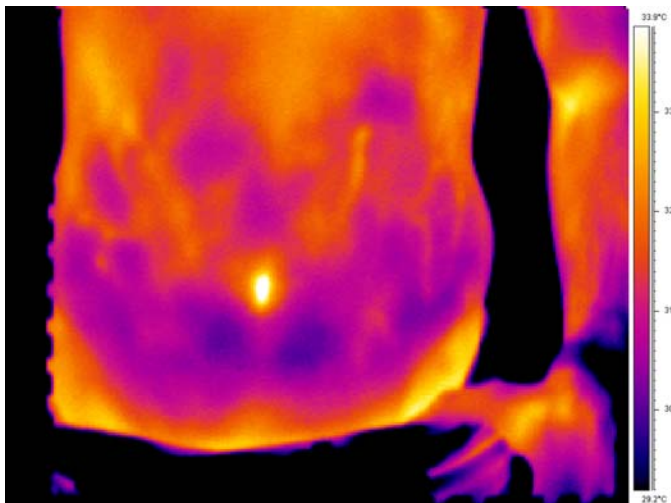
Comments: With childhood onset of both generalized and absence seizures this is a possible case of "true epilepsy," co-morbid psychiatric illness not specified, coolness in both lower right and lower left quadrants at 20 minutes, notable premonitions, auras, and autonomic symptoms, possible hereditary factor.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

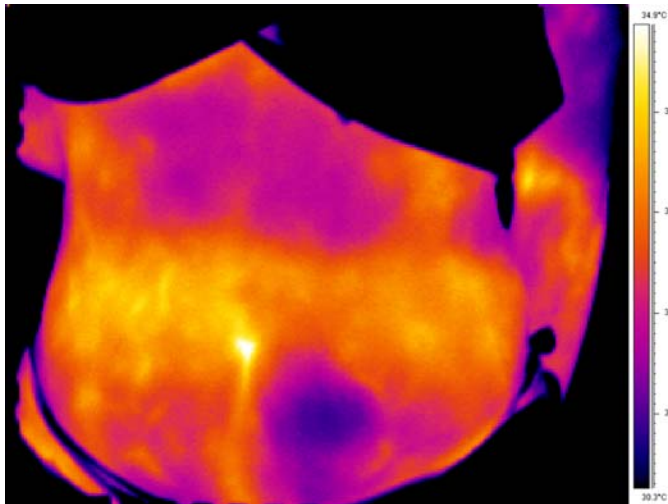
Epilepsy Participant #15

Participant: E-15, male, age 29

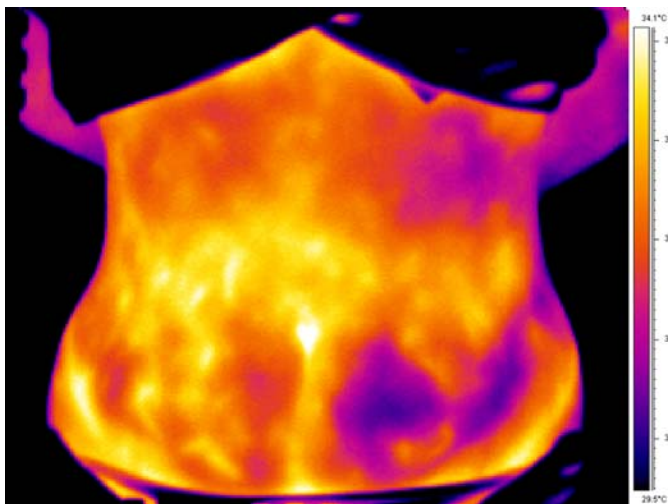
Type of Epilepsy: No medical data, participant has 1 or 2 seizures per year, has aura and lays on floor, when younger he experienced a tingling sensation on left side of body which worked its way up, then a funny taste in mouth and left side of body sent numb.

Onset of Seizures: Onset at age 2

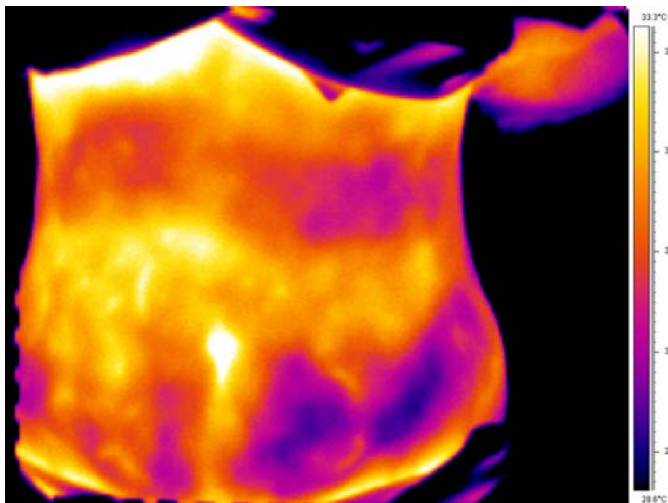
Comments: There were cold spots on both lower left and lower right quadrants at 20 minutes, began taking antiseizure medication at age 2 and continues to present. Without medical diagnosis it is difficult to say if this is "true epilepsy" due to Jacksonian type progression/march of sensations and mild effects of seizures but may qualify as "true epilepsy."



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

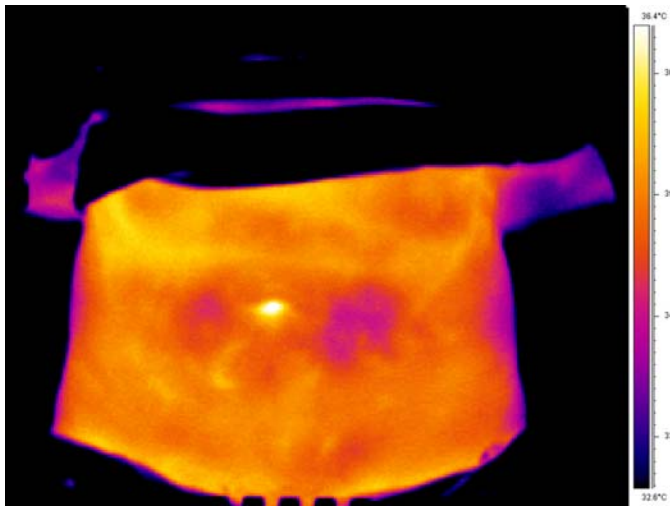
Epilepsy Participant #16

Participant: E-16, female, age 43

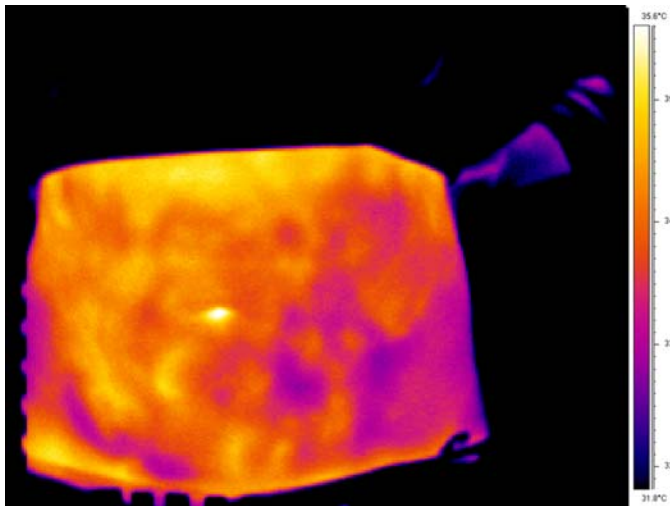
Type of Epilepsy: No medical data, has 3-4 nocturnal seizures per year, does not take medication

Onset of Seizures: Onset at age 28

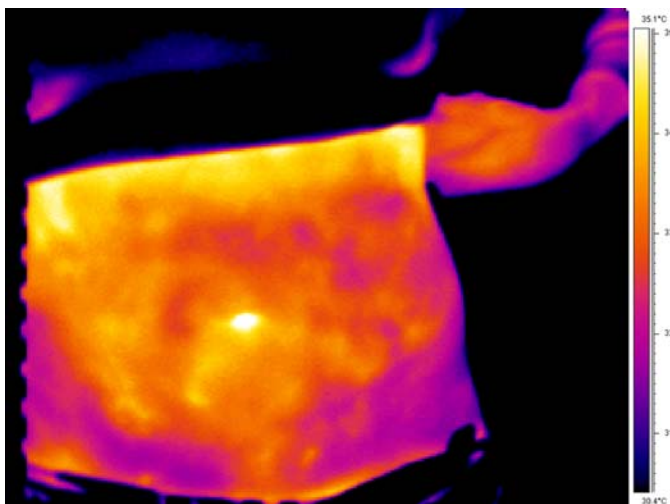
Comments: Participant wakes from sleep between 1-4 AM feeling hot sensation, abdominal discomfort, and urgency for bowel movement; after bowel movement body is shaking and stiff for 1-2 minutes while unconscious; upon waking does not have awareness of person or place, feels nausea and weakness for several hours; cold spot in lower left quadrant at 20 minutes; probably not “true epilepsy” due to late age of onset and unusual nature of seizures.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

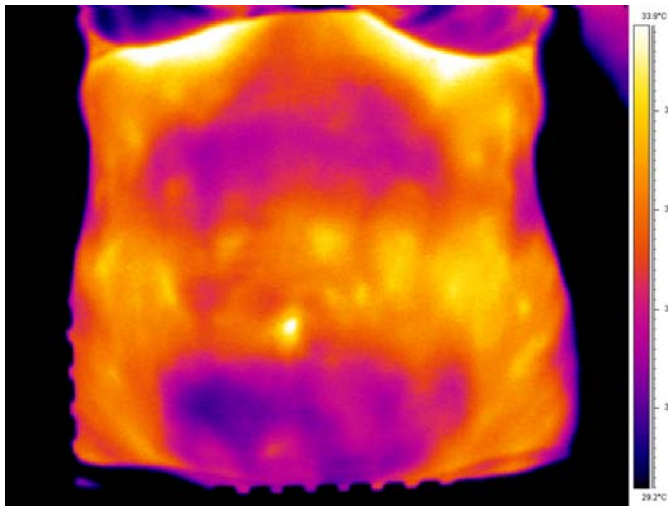
Epilepsy Participant #17

Participant: E-17, female, age 43

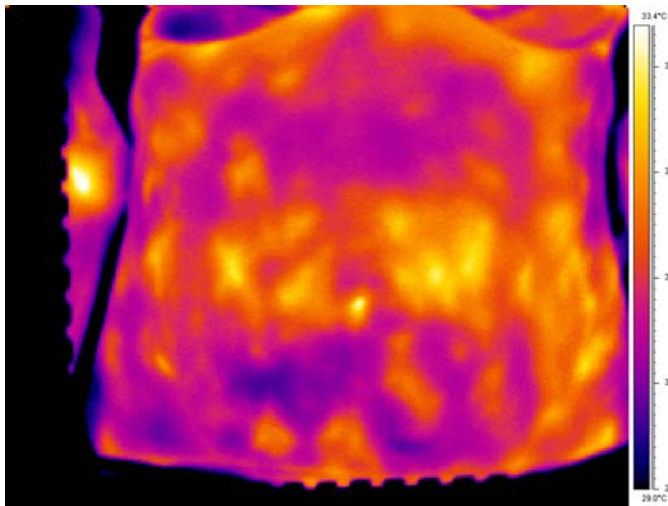
Type of Epilepsy: Primary generalized tonic-clonic seizures with premonitions and auras.

Onset of Seizures: Onset at age 12

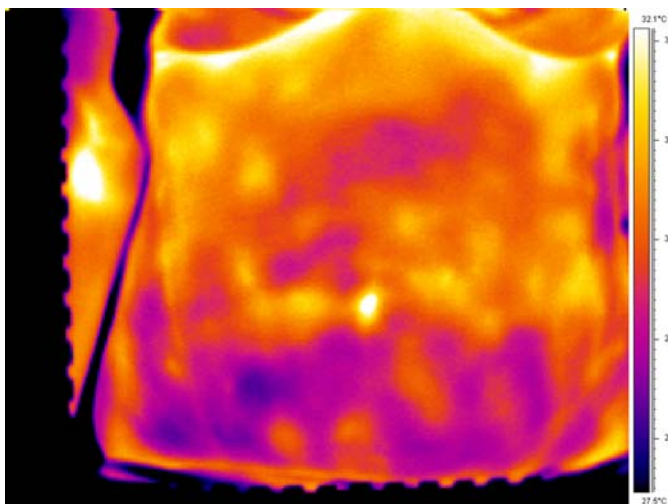
Comments: Broken back (T4-T10) and swollen abdomen reported by participant with IBS six years ago; cold spot in lower left quadrant at 20 minutes; possibly “true epilepsy.”



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

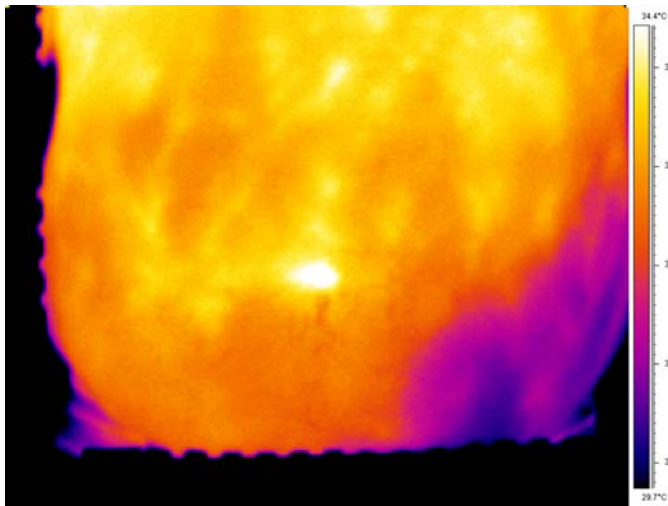
Epilepsy Participant #18

Participant: E-18, female, age 47

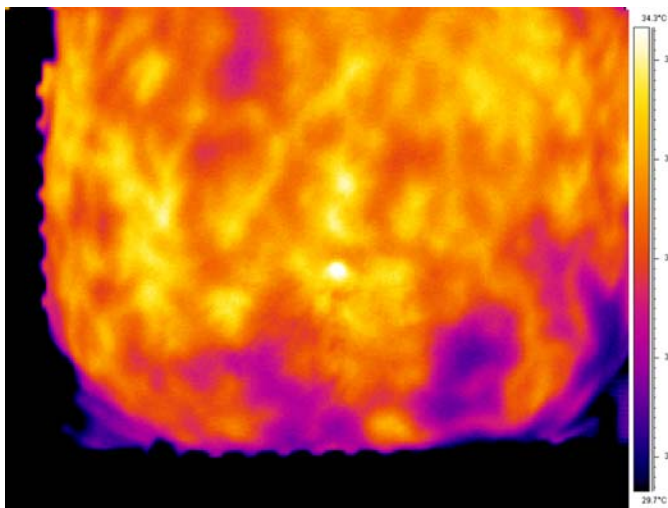
Type of Epilepsy: No medical data, participant reports “complex partial temporal lobe” epilepsy

Onset of Seizures: Onset at age 24

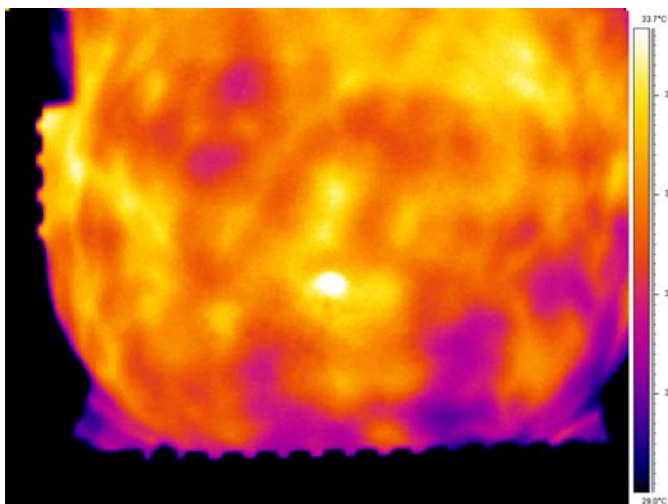
Comments: History of migraine at puberty, has some aura symptoms at beginning of seizure, seizures often occur in bathroom when going to urinate or taking hot shower, if there is an aura the seizure is not as bad, dizziness is common, olfactory sensation may be trigger (mustiness) or part of aura; has cold spot in lower right quadrant at 20 minutes; without medical diagnosis is difficult to classify and with adult onset this is difficult to classify; possible “true epilepsy” due to migraines at puberty which may indicate abdominal etiology in Cayce’s model.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

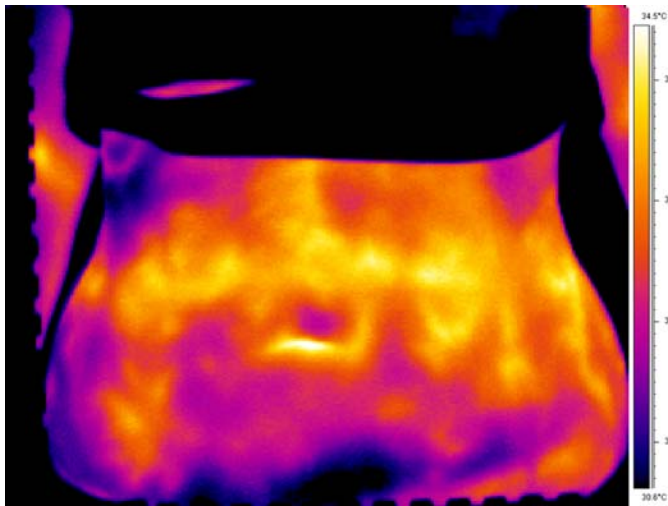
Epilepsy Participant #19

Participant: E-19, male, age 19

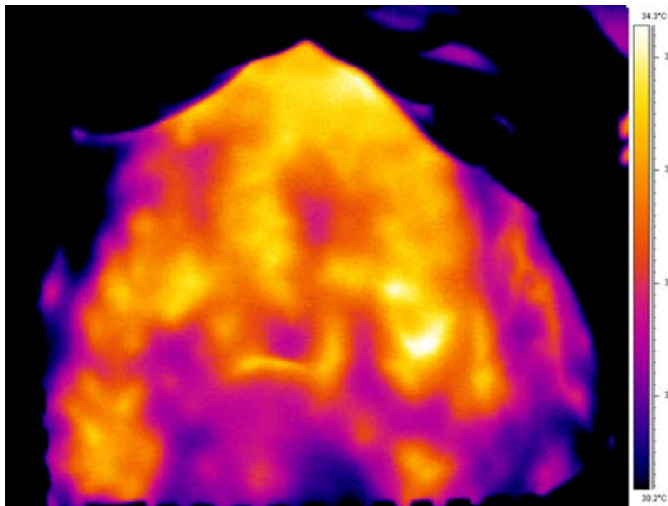
Type of Epilepsy: Neurologist classified this as “idiopathic” while checking both “complex partial seizures” and secondarily generalized tonic-clonic seizures”

Onset of Seizures: Onset at age 3

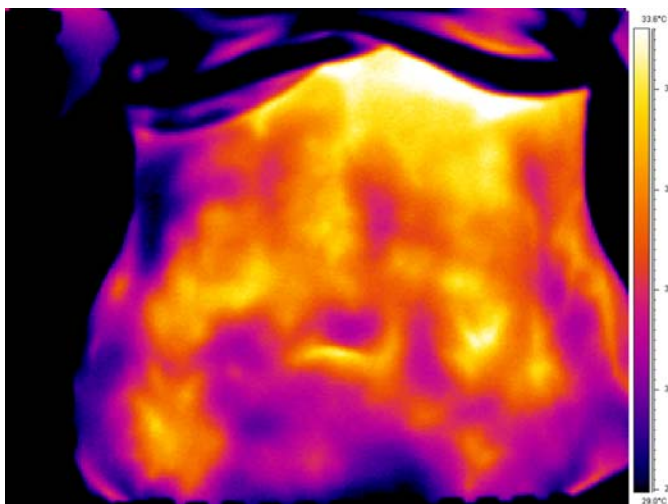
Comments: Has 2 seizures per day, without medication would be severe grand mal; had petit mal absence seizures (age 3-14) and grand mal (age 14-19); had vagal implant; has notable aura and autonomic features; probably “true epilepsy,” cold spot in lower left quadrant and slightly cool area in lower right quadrant at 20 minutes.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

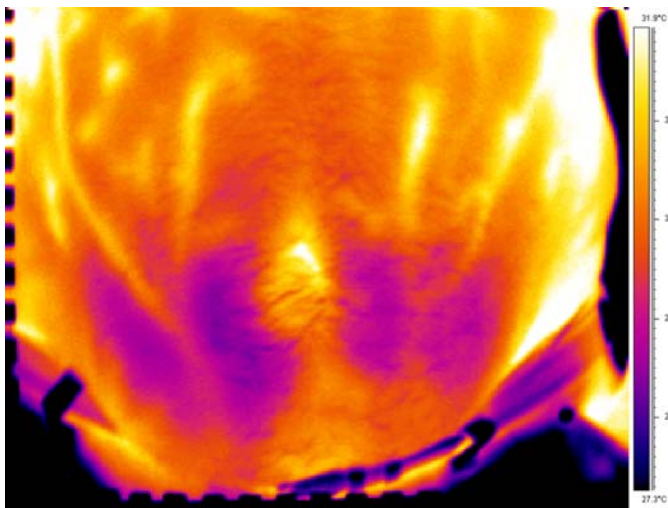
Epilepsy Participant #20

Participant: E-20, female, age 30

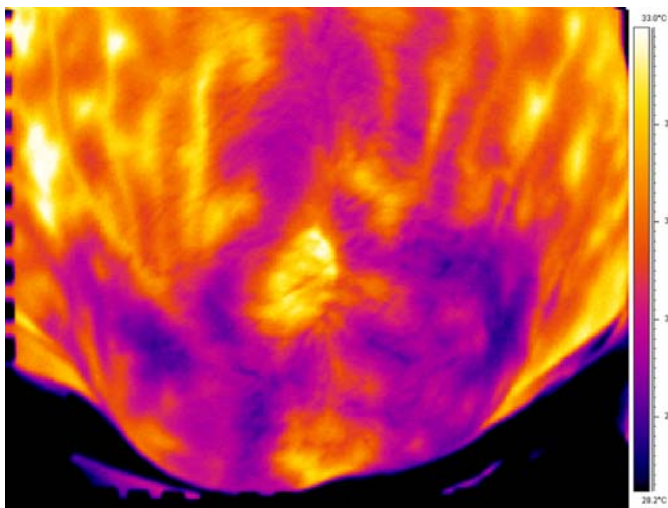
Type of Epilepsy: No medical data; participant reports generalized seizures with 1 petit and 1 grand mal per month.

Onset of Seizures: Reports seizures since birth

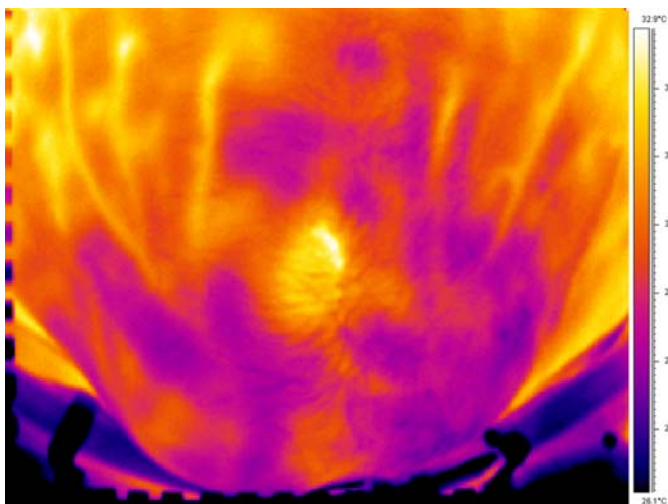
Comments: Notable autonomic features; cool areas in both lower right and left quadrants at 20 minutes, cold spot with circular feature present in lower right quadrant after alcohol rub; possible “true epilepsy.”



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

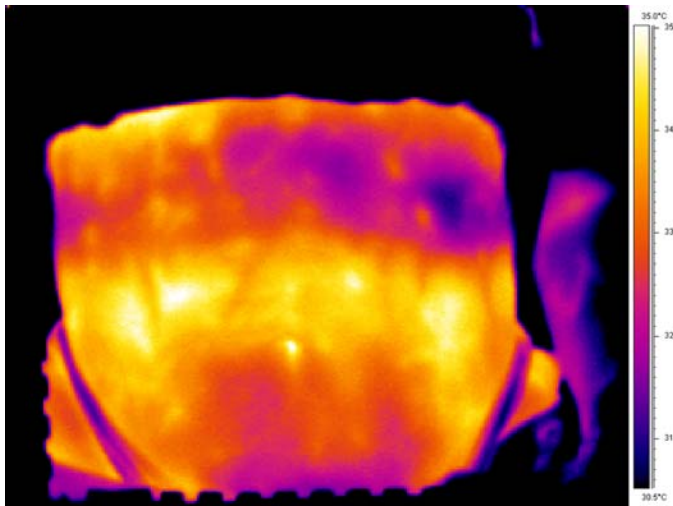
Epilepsy Participant #21

Participant: E-21, male, age 36

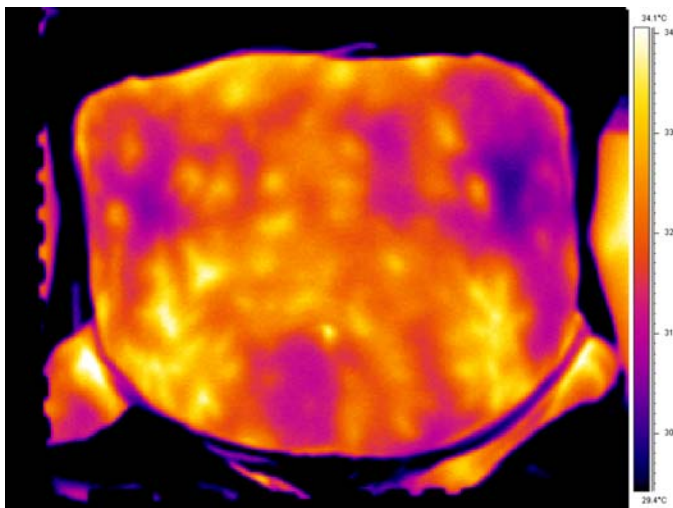
Type of Epilepsy: No medical data; participant reports petit mal seizures (staring into space and smacking of lips for 1-3 minutes), seldom has seizures which participant believes are controlled by medication.

Onset of Seizures: Diagnosed with epilepsy at age 22, but may have had seizures “whole life.”

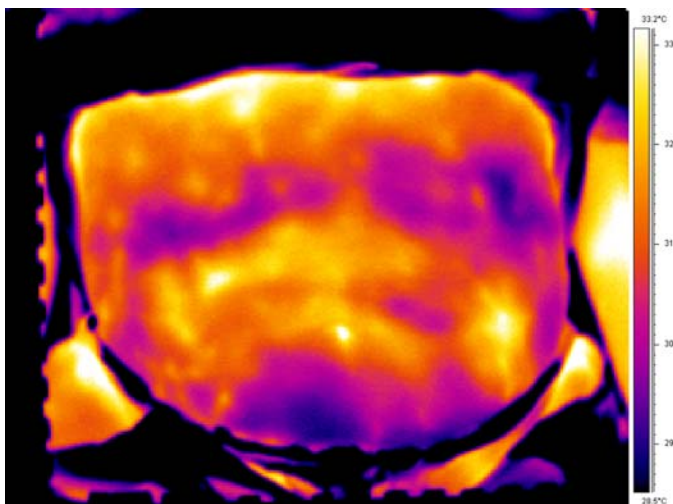
Comments: Cold spots in both lower right and lower left quadrants at 20 minutes; without medical diagnosis this is difficult to classify due to late age of diagnosis and mildness of symptoms; possible “true epilepsy.”



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

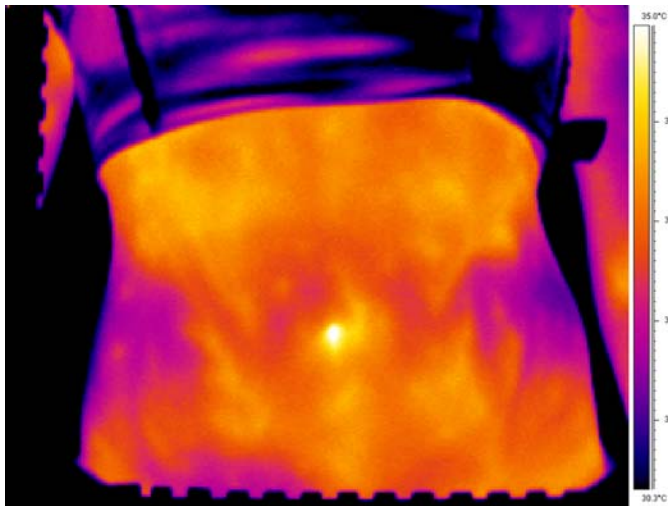
Epilepsy Participant #22

Participant: E-22, female, age 43

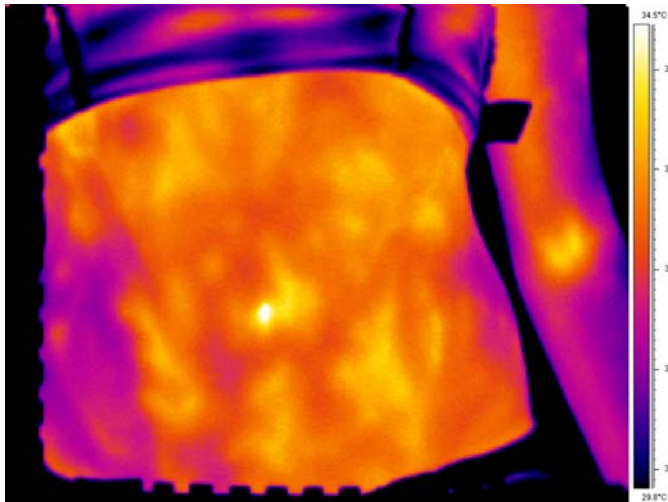
Type of Epilepsy: No medical data; participant reports having both mild absence seizures and severe generalized seizures.

Onset of Seizures: Onset at age 4 due to high fever

Comments: Participant reports that generalized seizures (3-5 per year) are controlled by medication but daily absence seizures are not controlled; slight cool spot in lower right quadrant at 20 minutes which is more exaggerated after alcohol rub; difficult to classify without medical data but is possible “true epilepsy” due to early age of onset, both types of seizures, and high fever as etiological factor.



Baseline



After 20 Minutes Equilibration

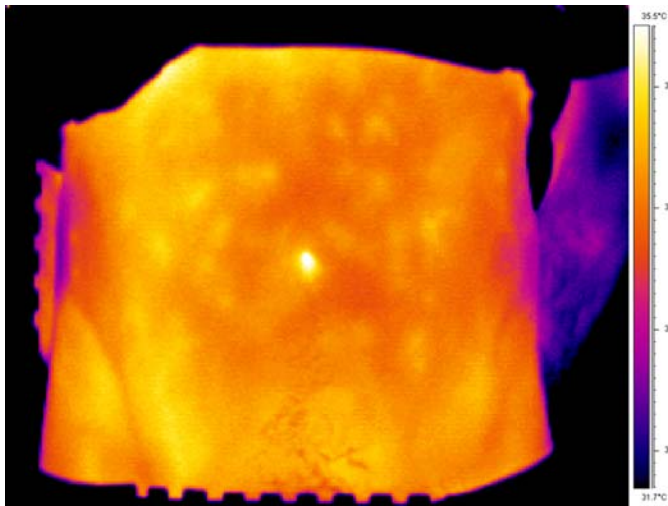
Epilepsy Participant #23

Participant: E-23, female, age 21

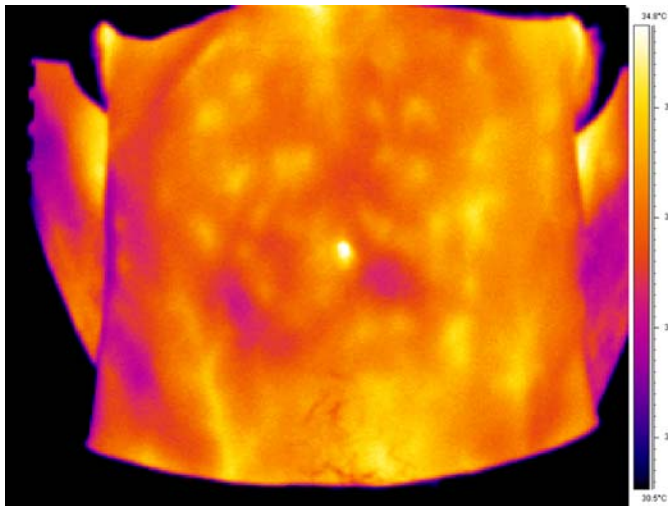
Type of Epilepsy: No medical data;

Onset of Seizures: Reports age of onset at 18 but may have been earlier.

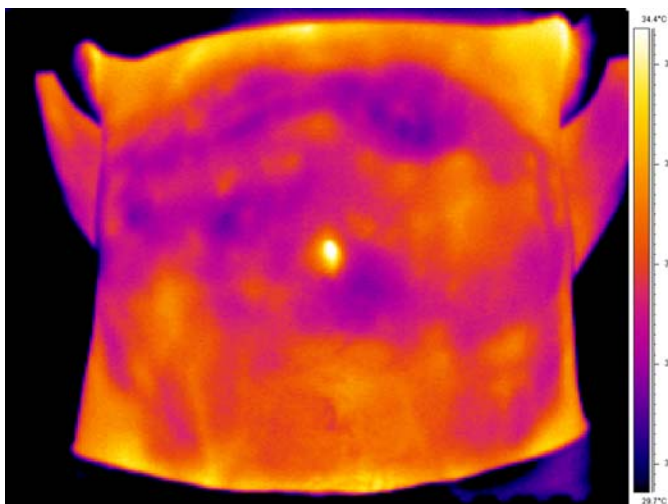
Comments: Notable premonitions, auras, and autonomic features; cold area on far right side beyond quadrant boxes; difficult to classify without medical data due to late age of onset.



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

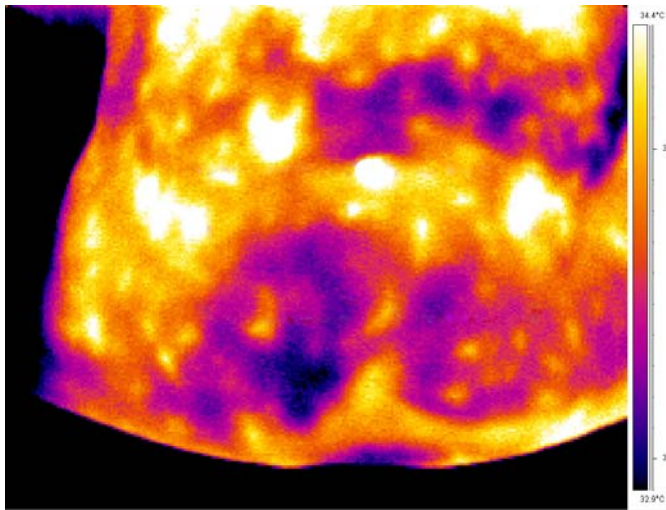
Epilepsy Participant #24

Participant: E-24, male, age 32

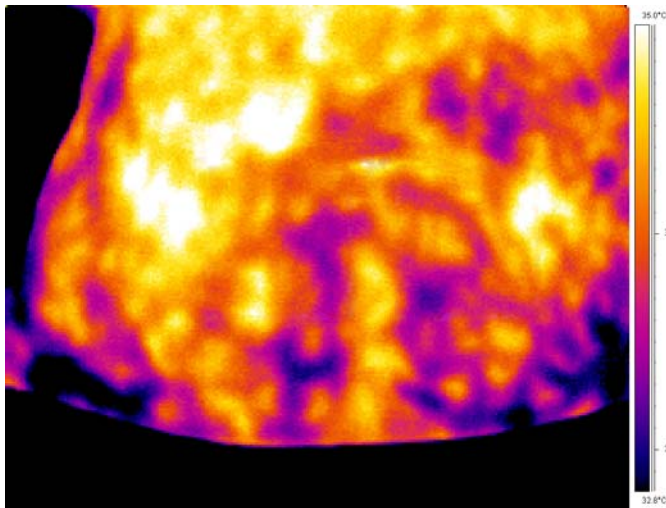
Type of Epilepsy: Complex partial seizures, left temporal

Onset of Seizures: Onset at age 2 months

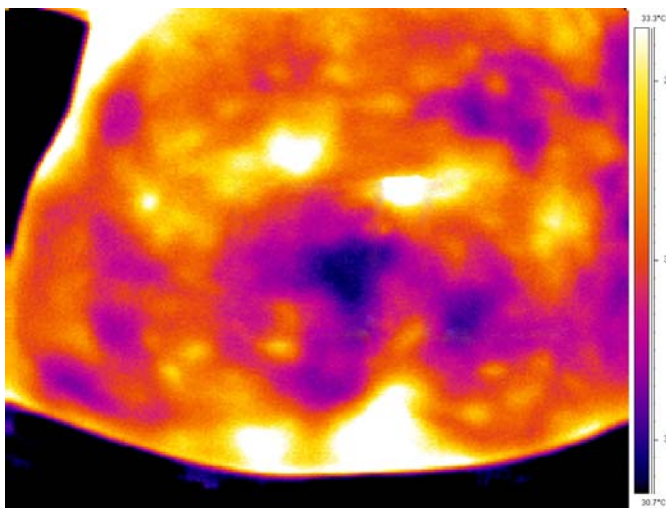
Comments: Has only had 3-4 grand mal seizures during life; has partial seizures 1x monthly for 10-15 minutes; small cold spots in both right and left lower quadrants; possible case of “true epilepsy.”



Baseline



After 20 Minutes Equilibration



After Alcohol Swab

Epilepsy Participant #25

Participant: E-25, female, age 59

Type of Epilepsy: Psycomotor

Onset of Seizures: Onset at age 7 years

Comments: Early onset of seizures and high frequency of seizures combined with cold spot on right side of abdomen at baseline and after alcohol swab suggests probable case of “true epilepsy.”