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Original Article

ORIGINAL RESEARCH—PHYSIOLOGY

Thermography as a Physiological Measure of Sexual Arousal in Both Men and Women

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ABSTRACT

Introduction. Current physiological measures of sexual arousal are intrusive, hard to compare between genders, and quantitatively problematic.

Aim. To investigate thermal imaging technology as a means of solving these problems.

Methods. Twenty-eight healthy men and 30 healthy women viewed a neutral film clip, after which they were randomly assigned to view one of three other video conditions: (i) neutral (N = 19); (ii) humor (N = 19); and (iii) sexually explicit (N = 20).

Main Outcome Measures. Genital and thigh temperatures were continuously recorded using a TSA ImagIR camera. Subjective measures of sexual arousal, humor, and relaxation were assessed using Likert-style questions prior to showing the baseline video and following each film.

Results. Statistical (Tukey HSD) post-hoc comparisons ($P < 0.05$) demonstrated that both men and women viewing the sexually arousing video had significantly greater genital temperature (mean = 33.89°C, SD = 1.00) than those in the humor (mean = 32.09°C, SD = 0.93) or neutral (mean = 32.13°C, SD = 1.24) conditions. Men and women in the erotic condition did not differ from each other in time to peak genital temperature (men mean = 664.6 seconds, SD = 164.99; women mean = 743 seconds, SD = 137.87). Furthermore, genital temperature was significantly and highly correlated with subjective ratings of sexual arousal (range $r = 0.51$ – 0.68 , $P < 0.001$). There were no significant differences in thigh temperature between groups.

Conclusion. Thermal imaging is a promising technology for the assessment of physiological sexual arousal in both men and women. **Kukkonen TM, Binik YM, Amsel R, and Carrier S. Thermography as a physiological measure of sexual arousal in both men and women. J Sex Med 2007;4:93–105.**