



# Education on Total Body Skin Examination in Dermatology Residency

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## Introduction

- ❖ Total body skin examination (TBSE) is a crucial examination skill for physicians
- ❖ Gaps in TBSE skills among medical students
  - 58% had not observed TBSE
  - 84% had not performed a TBSE
- ❖ Given this gap, dermatology programs may be training residents who had not received prior TBSE training
- ❖ Little is known about methods used to teach TBSE techniques to dermatology residents
- ❖ Study objective: to assess TBSE education and practice in residency training

## Methods

- ❖ Surveyed dermatology program directors and residents using REDCap
- ❖ Distributed via Association of Professors of Dermatology and Medical Dermatology Society
- ❖ 7-point Likert scale
- ❖ Survey questions assessed:
  - Formal TBSE education during medical school, residency, fellowship, after training
  - TBSE educational resources
  - Importance of consistency in TBSE
  - Confidence in performing TBSE
  - Anatomic locations assessed in TBSE
- ❖ 129 survey responses were collected from 38 program directors and 91 residents (PGY2-PGY4). Response rate: 33.6% of residency programs, 7.6% of residents

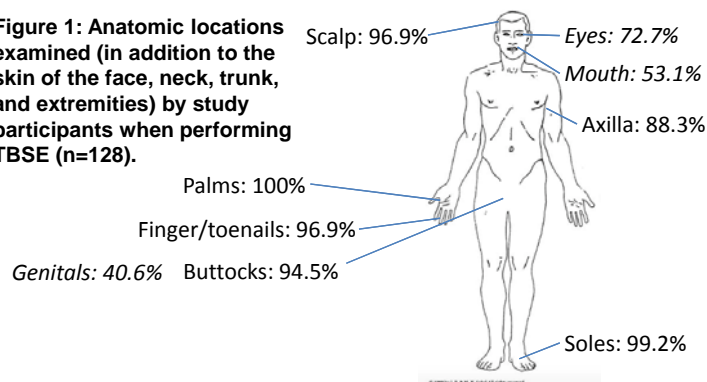
## Results

- ❖ 61.7% (79/128) formally instructed on TBSE technique, 38.3% (49/128) self-taught
- ❖ 43.2% (16/37) of program directors and 69.2% (63/91) of residents received formal education
- ❖ 66.7% (86/129) felt it was extremely important to perform TBSE consistently
- ❖ Resident confidence performing a TBSE rated extremely confident (23.1%) somewhat confident (70.4%), and not confident (6.6%)

**Table 1: Educational resources used in the development of TBSE technique.**

Educational resources used to learn TBSE technique	Number of participants who considered resource "extremely important" in development of TBSE technique
Observing others	88 (n=128, 68.8%)
Education during residency	86 (n=129, 66.7%)
Education during medical school	22 (n=128, 17.2%)
Self-taught	37 (n=127, 29.1%)

**Figure 1: Anatomic locations examined (in addition to the skin of the face, neck, trunk, and extremities) by study participants when performing TBSE (n=128).**



## Discussion/Conclusions

- ❖ Results indicate that there is opportunity for improvement in TBSE education and practice
  - Many residents have not received TBSE training
  - Majority of residents only somewhat confident
- ❖ Education through observation during residency is frequently used in TBSE technique development
- ❖ Situated learning theory in resident education
  - Instructional approach; active participation in environment in which skill will be performed
  - Observation and practice improves the acquisition of physical examination skills
- ❖ Locations examined in TBSE
  - Mouth, eyes, and genitals often unexamined
  - Teaching TBSE should emphasize completeness
- ❖ Limitations
  - Online recruitment; response rate
  - Not stratified by postgraduate year
- ❖ Future studies: develop an efficient and ergonomic standardized TBSE technique to be implemented in resident education

## References

1. Garg, A., et al., *Curricular factors associated with medical students' practice of the skin cancer examination: an educational enhancement initiative by the integrated skin exam consortium.* JAMA Dermatol, 2014. **150**(8): p. 850-5.
2. Moore, M.M., et al., *Skin cancer examination teaching in US medical education.* Arch Dermatol, 2006. **142**(4): p. 439-44.
3. Martineau, B., et al., *To observe or not to observe peers when learning physical examination skills; that is the question.* BMC Med Educ, 2013. **13**: p. 55.
4. *The skin exam.* Basic Dermatology Curriculum 2015 [cited 2015 August 13]; Available from: <https://www.aad.org/education/basic-dermatology-curriculum/suggested-order-of-modules/four-week-rotation/week-1/the-skin-exam>.