## 研究報告

## 上肢挙動に伴う カップ内乳房の偏位とブラジャーフレームのズレ

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Dislocation of the brassiere frame and displacement of the breast in the brassiere cup while lifting the arm

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## Abstract

This study was conducted to clarify the relationship between dislocation of the brassiere frame and displacement of the breast in the brassiere cup while lifting the arm in adult women in different age groups. Each subject wearing the tested brassiere was instructed to stand still and move her both arms forward, upward, sideway and then down to the initial position. This consecutive movement was repeated 10 times to measure the dislocation of the brassiere frame and displacement of the breast in the brassier cup using a CCD camera. The obtained visual data was statistically analyzed.

The amount of breast displacement while lifting the arm tended to be greater in the vertical direction than in the horizontal direction. This tendency was more remarkable in the group of young women with hard and good-shaped breasts than in the group of middle-aged women with soft and sagging breasts. The maximum value of breast displacement was measured on the lateral side of the brassiere rather than on the midline of the brassiere. The brassiere cup frame tended to less dislocate along the upper border of the cup. On the other hand, the dislocation was greater around the root of the arm and along the lower border of the midline. Irrespective of the amount of displacements of the breast, the