

Fig. 1: Investigations of the dummies and application and validation of the findings on test persons

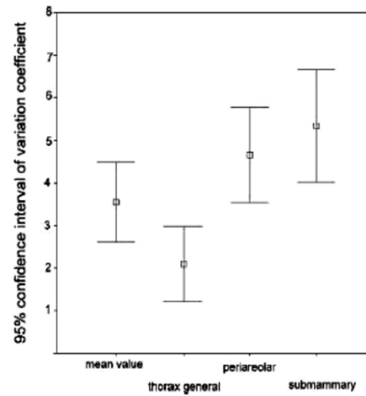


Fig. 2: The precision of the measurements on the 3D images of the breast region.

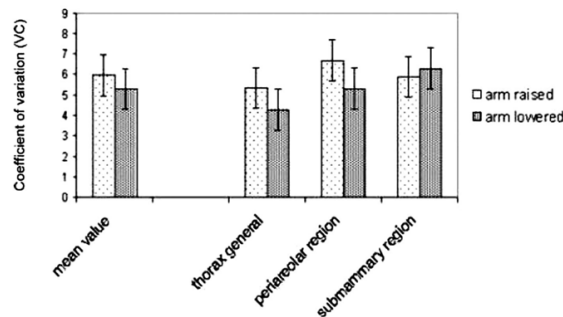


Fig. 3: The precision of the measurements in connection with the number of the scanners used and the single shots. Precision of the measurements according to the anatomic regions: mean value of the coefficient of variation (VC) for all test persons.

|                        | Without Marked Landmarks |      |     |                      |      |     | With Marked Landmarks |      |     |         |      |     |
|------------------------|--------------------------|------|-----|----------------------|------|-----|-----------------------|------|-----|---------|------|-----|
|                        | Dummy A*                 |      |     | Dummy B <sup>†</sup> |      |     | Dummy A               |      |     | Dummy B |      |     |
|                        | Mean                     | SEM  | No. | Mean                 | SEM  | No. | Mean                  | SEM  | No. | Mean    | SEM  | No. |
| 1 Scanner and 2 shots  |                          |      |     |                      |      |     |                       |      |     |         |      |     |
| Thorax gen.            | 3.60                     | 0.29 | 144 | 5.12                 | 0.47 | 144 | 1.11                  | 0.10 | 144 | 2.11    | 0.38 | 144 |
| Periareolar            | 4.86                     | 0.43 | 111 | 7.04                 | 0.59 | 111 | 2.39                  | 0.19 | 111 | 2.76    | 0.25 | 111 |
| Submammary             | 4.01                     | 0.53 | 60  | 9.01                 | 1.35 | 60  | 3.57                  | 0.59 | 60  | 2.61    | 0.41 | 60  |
| 1 Scanner and 3 shots  |                          |      |     |                      |      |     |                       |      |     |         |      |     |
| Thorax gen.            | 3.90                     | 0.31 | 144 | 2.99                 | 0.23 | 144 | 2.30                  | 0.24 | 144 | 1.24    | 0.14 | 144 |
| Periareolar            | 6.67                     | 0.61 | 111 | 3.37                 | 0.26 | 111 | 3.43                  | 0.30 | 111 | 1.87    | 0.17 | 111 |
| Submammary             | 5.99                     | 0.90 | 60  | 3.37                 | 0.42 | 60  | 4.60                  | 0.76 | 60  | 2.01    | 0.44 | 60  |
| 2 Scanners and 2 shots |                          |      |     |                      |      |     |                       |      |     |         |      |     |
| Thorax gen.            | 3.58                     | 0.27 | 144 | 2.46                 | 0.20 | 144 | 1.19                  | 0.11 | 144 | 0.95    | 0.11 | 144 |
| Periareolar            | 5.00                     | 0.45 | 111 | 3.42                 | 0.29 | 111 | 3.14                  | 0.37 | 111 | 1.51    | 0.13 | 111 |
| Submammary             | 4.15                     | 0.53 | 60  | 3.80                 | 0.48 | 60  | 6.45                  | 1.49 | 60  | 1.62    | 0.24 | 60  |

\*Dummy A, dummy with small breasts.  
<sup>†</sup>Dummy B, dummy with large breasts.  
 Thorax gen., general area of the thorax.