# Breast reconstructive surgery: Risk factors for complications and healthrelated quality of life

-Clinical studies

#### Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademin, Göteborgs universitet kommer att offentligen försvaras i Europa, Medicinaregatan 20A den 18. maj, klockan 9.00

av Andri Thorarinsson

Fakultetsopponent:

Sinikka Suominen, professor

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#### Avhandlingen baseras på följande delarbeten

- I. Thorarinsson, A., Fröjd, V., Kölby, L., Lewin, R., Molinder, N., Lundberg, J., Elander, A., Mark, H. A systematic comparison of the incidence of various complications in different delayed breast reconstruction methods. Journal of Plastic Surgery and Hand Surgery. 2015; 50(1): 25-34.
- II. Thorarinsson, A., Fröjd, V., Kölby, L., Modin, A., Lewin, R., Elander, A., Mark, H. Blood loss and duration of surgery are independent risk factors for complications after breast reconstruction.
  Journal of Plastic Surgery and Hand Surgery. 2017; doi: 10.1080/2000656X.2016.1272462. [Epub ahead of print].
- III. Thorarinsson, A., Fröjd, V., Kölby, L., Lidén, M., Elander, A., Mark, H. Patient determinants as independent risk factors for postoperative complications of breast reconstruction.
  Manuscript accepted in Gland Surgery.
- IV. Thorarinsson, A., Fröjd, V., Kölby, L., Ljungdal, J., Taft, C., Mark, H. Long-term health-related quality of life after breast reconstruction: Comparing four different methods of reconstruction.
  Manuscript accepted in Plastic and Reconstructive Surgery, Global Open.

### SAHLGRENSKA AKADEMIN

### INSTITUTIONEN FÖR KLINISKA VETENSKAPER



# Breast reconstructive surgery: Risk factors for complications and healthrelated quality of life

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## **Abstract**

**Background:** Complications after breast reconstructive surgery are common and can be caused by a wide range of factors, such as the reconstructive method, perioperative factors and patient related factors. The aim of breast reconstruction is to restore body image and health-related quality of life (HR-QoL).

**Aim:** Evaluation of postoperative complications, to find independent risk factors for complications and compare HR-QoL between breast reconstruction patients, and with the general population.

**Method:** Four retrospective studies based on a large group of patients treated with breast reconstruction.

**Results:** Paper I states the importance of a systematic and meticulous registration of complications in comparisons of different methods.

Paper II shows the perioperative factors of duration of surgery and blood loss during surgery as independent risk factors for several postoperative complications.

Paper III shows several patient related factors as independent risk factors for complications.

Paper IV shows that patients reconstructed with a DIEP flap are more satisfied with their reconstruction and overall outcome than patients in the other groups.

**Conclusion:** Complications after breast reconstructive surgery are common. Patients reconstructed with DIEP flap are more satisfied with their reconstruction than patients reconstructed with other methods. DIEP flaps should be more widely available, and complications rate after this type of surgery should be minimized.

**Keywords**: breast cancer, breast reconstruction, surgical complications, health-related quality of life

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