This diploma paper is concerned with subcutaneous mastectomy as a prevention of breast cancer. We collected a group of patients who were operated for subcutaneous mastectomy on Departement of Plastic Surgery, University Hospital Bulovka in years 2001-2005. Indication for profylactic mastectomy was based on severe fibrocystic mastopathy. In our study, we focused on medical history, histological findings, type and time of reconstruction.