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| --- | --- | --- | --- |
| **Informationskilde** | **Pubmed** | **Søgedato** | **22.09.16** |
| **Inklusions- og eksklusionskriterier (Sprog, tidsinterval, population, publikationstype)** | | | |
| **Sprog: Dansk og engelsk**  **Tidsinterval: -**  **Population:**  **Publikationstype:**  **Evt. overvejelser i forbindelse med udvælgelse af ”relevante hits”:** | | | |
| **Søgestreng** | | | **Hits/relevante hits** |
| Nursing monitoring | | | 14149 hits |
| Breast feeding AND Monitoring | | | 800Hits |
| Breast feeding AND Monitoring AND technology | | | 23 hits |
| Breastfeeding AND Monitoring AND technology | | | 31 hits |
| Nursing monitoring AND Technology AND Infant | | | 82 Hits |
| Nursing monitoring AND Technology AND Infant AND human milk | | | 5 hits |

# **Søgning L5**

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| **Informationskilde** | **Google** | **Søgedato** | **22.09.16** |
| **Inklusions- og eksklusionskriterier (Sprog, tidsinterval, population, publikationstype)** | | | |
| **Sprog: Dansk og engelsk**  **Tidsinterval: -**  **Population:**  **Publikationstype:**  **Evt. overvejelser i forbindelse med udvælgelse af ”relevante hits”:** | | | |
| **Søgestreng** | | | **Hits/relevante hits** |
| Breastfeeding monitoring | | | 853.000 hits |
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## Artikler

[**Volpara (TM) as a measurement tool for breast volume**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=60&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Teo, Isabel; Whelehan, Patsy; Macaskill, Jane E.; et al.

[JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY 1.569](javascript:;)

Volume: 69   Issue: 4   Pages:581-582   Published: APR 2016  
Link: <http://www.sciencedirect.com/science/article/pii/S1748681515005732>

## Citeret 0 gange Metode til at udregne brystvolume I fobindelse med mammografi. Beregninger kan laves bagud I tiden. Dog er det ikke en håndholdt måling, det kræver røngtenudstyr.

[**Volume Measurement of Various Tissues Using the Image J Software**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=62&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Rha, Eun Young; Kim, Ji Min; Yoo, Gyeol

[JOURNAL OF CRANIOFACIAL SURGERY](javascript:;)  Volume: 26   Issue: 6   Pages: E505-E506   Published: SEP 2015

[Various methods have been introduced to assess the tissue volume because volumetric evaluation is recognized as one of the most important steps in reconstructive surgery. Advanced volume measurementmethods proposed recently use three-dimensional images. They are convenient but have drawbacks such as requiring expensive equipment and volume-analysis software. The authors devised a volume measurementmethod using the Image J software, which is in the public domain and does not require specific devices orsoftware packages. The orbital and breast volumes were measured by our method using Image J data from facial computed tomography (CT) and breast magnetic resonance imaging (MRI). The authors obtained thefinal volume results, which were similar to the known volume values. The authors propose here a cost-effective, simple, and easily accessible volume measurement method using the Image J software.](javascript:;)

**Times Cited:**[**1**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=S1qUFb9eWq2klx54pww&search_mode=CitingArticles&parentProduct=WOS&parentQid=62&parentDoc=1&REFID=494802071&excludeEventConfig=ExcludeIfFromNonInterProduct)*(from Web of Science Core Collection)*

[**Development and assessment of a Microsoft Kinect based system for imaging the breast invthreedimensions**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=83&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Wheat, J. S.; Choppin, S.; Goyal, A.

[MEDICAL ENGINEERING & PHYSICS](javascript:;) 1.946 Volume: 36   Issue: 6   Pages: 732-738   Published: JUN 2014

[Three-dimensional surface imaging technologies have been used in the planning and evaluation of breastreconstructive and cosmetic surgery. The aim of this study was to develop a 3D surface imaging systembased on the Microsoft Kinect and assess the accuracy and repeatability with which the system could imagethe breast. A system comprising two Kinects, calibrated to provide a complete 3D image of the mannequin was developed. Digital measurements of Euclidean and surface distances between landmarks showed acceptable agreement with manual measurements. The mean differences for Euclidean and surface distances were 1.9 mm and 2.2 mm, respectively. The system also demonstrated good intra-and inter-rater reliability (ICCs > 0.999). The Kinect-based 3D surface imaging system offers a low-cost, readily accessible alternative to more expensive, commercially available systems, which have had limited clinical use. (C) 2014 IPEM. Published by Elsevier Ltd. All rights reserved.](javascript:;)

**Times Cited:**[**6**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=S1qUFb9eWq2klx54pww&search_mode=CitingArticles&parentProduct=WOS&parentQid=83&parentDoc=1&REFID=470665610&excludeEventConfig=ExcludeIfFromNonInterProduct)

[**Validation of the Kinect device as a new portable imaging system for three-dimensional breastassessment**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=80&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Henseler, Helga; Kuznetsova, Alina; Vogt, Peter; et al.

[JOURNAL OF PLASTIC RECONSTRUCTIVE AND AESTHETIC SURGERY](javascript:;)  1.569 Volume: 67   Issue: 4   Pages:483-488   Published: APR 2014

[Aim: The aim of this study was the evaluation of a new, simple, touchless, low-cost and portable three-dimensional (3D) measurement system for objective breast assessment.](javascript:;)

[Method: The Kinect Recording System by Microsoft was used. Coloured and depth images were captured ofnine silicone breast implants of known volumes. The data were processed using Matlab (R) software. Volume measurements were obtained in a blinded calculation on the 3D images. For further comparison, implant volumes were assessed with the Arthur Morris device, a manual measurement tool.](javascript:;)

[Results: Four tests revealed that the true breast implant volumes were calculated within an error margin of10%. Reproducibility of measurements was satisfactory. Overall, the accuracy and reproducibility of themeasurements of the Kinect System were better than those of the Arthur Morris device. Accuracy of volume assessments with the Kinect System was satisfactory for clinical application. Our new portable 3D imagingsystem was successfully validated.](javascript:;)

[Discussion: The portable and easy-to-use system has several advantages against the currently available commercial systems. Despite a slight overestimation of the volume data, we felt that these results were very promising due to the repeatability of the measurements. After validating the measurement accuracy of thesystem in a simpler case, we aim to conduct further studies on 3D breast assessment.](javascript:;)

[Conclusion: The results obtained with the Kinect System were sufficiently accurate and reproducible forapplication in 3D breast capture. We successfully validated the portable 3D imaging system for the first ever use in 3D breast assessment. (C) 2013 British Association of Plastic, Reconstructive and Aesthetic Surgeons. Published by Elsevier Ltd. All rights reserved.](javascript:;)

**Times Cited:**[**4**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=S1qUFb9eWq2klx54pww&search_mode=CitingArticles&parentProduct=WOS&parentQid=80&parentDoc=1&REFID=468380343&excludeEventConfig=ExcludeIfFromNonInterProduct)

[**Reliability of plastic cups to measure breast volume**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=96&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Hansson, Emma; Manjer, Jonas; Ringberg, Anita

[JOURNAL OF PLASTIC SURGERY AND HAND SURGERY](javascript:;) 0.705 Volume: 48   Issue: 4   Pages: 254-258  Published: AUG 2014

[Breast volume measurement is valuable in clinical practice, and various methods have been used. Nonetheless, no commonly accepted standard technique exists for clinical everyday use and there is no optimal method that is quick, cheap, minimally invasive, and acceptable for the patient and for the surgeon. Previously, a study has shown that the volume measured with plastic cups differed little from that measured from mastectomy specimens. The aim of the present study was to test the reliability of breast volumemeasurements with plastic cups as a tool to measure breast volume in everyday clinical practice. The plasticcups were designed by the senior author (AR) and comprise 14 cups from 125 millilitres (ml) to 2000 ml. Six raters measured 12 breasts on the same day. The results show that there is a certain variation between different raters, and that a certain rater seems to consistently measure slightly lower or higher volumes than the other raters. The Intra Class Correlation (ICC) coefficient of average measures between raters is 0.89, that is, the agreement between different raters is high. According to the Bland-Altman plot, the overall assessmentof the comparisons of measurements between the different raters shows that the direction of the mean differences is close to zero. The limits of agreements of the differences were within +/- 56 ml. The coefficientof variation (CV) between different raters was 14%. Breast volume measurement with plastic cups is an easily usable quick and cheap way to measure breast volume in everyday clinical practice. The measurements have an acceptable reliability.](javascript:;)

**Times Cited:**[**2**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=S1qUFb9eWq2klx54pww&search_mode=CitingArticles&parentProduct=WOS&parentQid=96&parentDoc=1&REFID=473143389&excludeEventConfig=ExcludeIfFromNonInterProduct)*(from Web of Science Core Collection)*

[**Measurement of Breast Volume after Breast Reconstruction Using Computed TomographicScanning**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=23&SID=S1qUFb9eWq2klx54pww&page=1&doc=2)

By: Park, Sang Uk; Shim, Jeong Su

[PLASTIC AND RECONSTRUCTIVE SURGERY](javascript:;) 3,514  Volume: 129   Issue: 6   Pages: 1020-1021   Published: JUN 2012

Citeret 2 gange  
Der findes ikke noget abstract

[**Accurate Assessment of Breast Volume A Study Comparing the Volumetric Gold Standard(Direct Water Displacement Measurement of Mastectomy Specimen) With a 3D Laser ScanningTechnique**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=29&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Yip, Jia Miin; Mouratova, Naila; Jeffery, Rebecca M.; et al.

[ANNALS OF PLASTIC SURGERY](javascript:;)1.535  Volume: 68   Issue: 2   Pages: 135-141   Published: FEB 2012

Citeret 16 gange

[Preoperative assessment of breast volume could contribute significantly to the planning of breast-related procedures. The availability of 3D scanning technology provides us with an innovative method for doing this. We performed this study to compare measurements by this technology with breast volume measurement bywater displacement. A total of 30 patients undergoing 39 mastectomies were recruited from our center. The volume of each patient's breast(s) was determined with a preoperative 3D laser scan. The volume of themastectomy specimen was then measured in the operating theater by water displacement. There was a strong linear association between breast volumes measured using the 2 different methods when using a Pearson correlation (r = 0.95, P < 0.001). The mastectomy mean volume was defined by the equation: mastectomymean volume = (scan mean volume x 1.03) -70.6. This close correlation validates the Cyberware WBX Scanner as a tool for assessment of breast volume.](javascript:;)

[**Breast volume assessment based on 3D surface geometry: verification of the method using MR imaging**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=34&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Eder, Maximilian; Schneider, Armin; Feussner, Hubertus; et al.

[BIOMEDIZINISCHE TECHNIK](javascript:;)0.871  Volume: 53   Issue: 3   Pages: 112-121   Published: 2008

Citeret 18 gange

[Differences in breast volume and contour are subjectively estimated by surgeons. 3D surface imaging using3D scanners provides objective breast volume quantification, but precision and accuracy of the methodrequires verification. Breast volumes of five test individuals were assessed using a 3D surface scanner. Magnetic resonance imaging (MRI) reference volumes were obtained to verify and compare the 3D scan measurements. The anatomical thorax wall curvature was segmented using MRI data and compared to theinterpolated curvature of the posterior breast volume delimitation of 3D scan data. MRI showed higher measurement precision, mean deviation (expressed as percentage of volume) of 1.1 0 0.34% compared to 1.63 0.53% for the 3D scanner. Mean MRI [right (left) breasts: 638 (629) 143 (138) cc] and 3D scan [right (left) breasts: 493 (497) 112 (116) cc] breast volumes significantly correlated [right (left) breasts: r=0.982 (0.977), p=0.003 (0.004)]. The posterior thorax wall of the 3D scan model showed high agreement with the MRI thorax wall curvature [mean positive (negative) deviation: 0.33 (-0.17) 0.37 cm]. High correspondence and correlationof 3D scan data with MR]based verifications support 3D surface imaging as sufficiently precise and accurate for breast volume measurements.](javascript:;)

[**Comparison between breast volume measurement using 3D surface imaging and classicaltechniques**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=38&SID=S1qUFb9eWq2klx54pww&page=1&doc=1)

By: Kovacs, Laszlo; Edera, Maximilian; Hollweck, Regina; et al.

Conference: Annual Meeting of the German-Association-of-Plastic-Surgeons (VDPC) Location: Munich, GERMANY Date: SEP 28-OCT 01, 2005   
Sponsor(s): German Assoc Plast Surg

[BREAST](javascript:;) 2.677 Volume: 16   Issue: 2   Pages: 137-145   Published: APR 2007

Citeret 91 gange

[Quantification of the complex breast region can be helpful in breast surgery, which is shaped by subjective influences. However, there is no generatty recognized method for breast volume calculation. Three-dimensionaL (3D) body surface imaging represents a new alternative for breast volume computation. The aim of this work was to compare breast volume calculation with 3D scanning and three classic methods, focusing on relative advantages, disadvantages, and reproducibility. Repeated breast volume calculations of both breasts in six patients (n = 12) were performed using a 3D laser scanner, nuclear magnetic resonance imaging(MRI), thermoplastic castings, and anthropomorphic measurements. Mean volumes (cc) and meanmeasurement deviations were calculated, and regression analyses were performed. MRI showed the highestmeasurement precision, with a mean deviation (expressed as a percentage of mean breast volume) of 1.56+0.52%](javascript:;)

[**Practical do-it-yourself device for accurate volume measurement of breast**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=51&SID=S1qUFb9eWq2klx54pww&page=1&doc=2)

By: Tezel, E; Numanoglu, A

[PLASTIC AND RECONSTRUCTIVE SURGERY](javascript:;) 3.514  Volume: 105   Issue: 3   Pages: 1019-1023   Published: MAR 2000

A simple and accurate method of measuring differences in breast volume based on Archimedes' principle is described. In this method, a plasticcontainer is placed on the breast of the patient who is lying in supine position. While the breast occupies part of the container, the remaining part is filled with water and the volume is measured. This method allows the measurement of the volume differences of asymmetric breasts and also helps the surgeon to estimate the size of the prosthesis to be used in augmentation mammaplasty.

**Times Cited:**[**33**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=S1qUFb9eWq2klx54pww&search_mode=CitingArticles&parentProduct=WOS&parentQid=51&parentDoc=2&REFID=4991324&excludeEventConfig=ExcludeIfFromNonInterProduct)*(from Web of Science Core Collection)*

**grossman-roudner measuring device:**

[**https://www.google.com/patents/US4219029**](https://www.google.com/patents/US4219029)

[**Interactive Web-Based Breastfeeding Monitoring: Feasibility, Usability, and Acceptability**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=32&SID=N2KyGKyezX6CS3zbdCp&page=1&doc=2)

By: Ahmed, Azza H.; Ouzzani, Mourad

[JOURNAL OF HUMAN LACTATION](javascript:;) 2.132 Volume: 28   Issue: 4   Pages: 468-475   Published: NOV 2012

[Background: Strategies that promote higher exclusive breastfeeding rate and duration are highly recommended. To date, no study has tested the feasibility of Web-based monitoring among breastfeedingmothers.](javascript:;)

[Goals: To develop an interactive Web-based breastfeeding monitoring system (LACTOR) and examine itsfeasibility, usability, and acceptability among breastfeeding mothers.](javascript:;)

[Methods: A prospective, descriptive, mixed-methods study was conducted. Mothers who met the study inclusion criteria were recruited from mother infant units in 2 Midwestern hospitals in the United States. Mothers were asked to enter their breastfeeding data daily through the system for 30 days and then submit an online exit survey. This survey consisted of a system usability scale and mothers' perceptions form. Twenty-six mother/infant dyads completed the study.](javascript:;)

[Results: The Feasibility of LACTOR was established by mothers' compliance in entering their breastfeedingdata. The mean was 8.87 (SD = 1.21) daily entries, and the range was 6-13 times per day. Usability scale total mean score was 3.35 (SD = 0.33; scale range 0-4). Ninety-two percent of the mothers thought that they did not need to learn many skills before they started to use LACTOR and did not need any technical support. Mothers reported that the monitoring was beneficial and gave them the chance to track their infants' feeding patterns and detect any problems early.](javascript:;)

[Conclusions: This study demonstrated the feasibility of LACTOR, and it was user-friendly and acceptable among mothers. Further studies to test its effect on breastfeeding outcomes are needed.](javascript:;)

**Times Cited:**[**2**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=N2KyGKyezX6CS3zbdCp&search_mode=CitingArticles&parentProduct=WOS&parentQid=32&parentDoc=2&REFID=439165934&excludeEventConfig=ExcludeIfFromNonInterProduct)*(from Web of Science Core Collection)*

[**Development and Assessment of an Interactive Web-Based Breastfeeding Monitoring System(LACTOR)**](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=34&SID=N2KyGKyezX6CS3zbdCp&page=1&doc=1)

By: Ahmed, Azza; Ouzzani, Mourad

[MATERNAL AND CHILD HEALTH JOURNAL](javascript:;) 2.363 Volume: 17   Issue: 5   Pages: 809-815   Published: JUL 2013

[The purpose of this study is to describe an interactive web-based breastfeeding monitoring system (LACTOR), illustrate its components, explain the theoretical framework, and discuss its assessment as a model for aninnovative breastfeeding support intervention. Based on the self-regulation model from Bandura Social Cognitive Theory, we have developed an interactive web-based breastfeeding monitoring system using abreastfeeding diary. The system has two main components: the Mothers' Portal, where mothers can enter theirbreastfeeding data and receive notifications, and the Lactation Consultants' Portal, where mothers' data can be monitored. The system is designed to send notifications to mothers in case of breastfeeding problems using triggers such as inability to latch, sleepy infant, jaundice, and maternal sore nipples. A prospective, descriptive, mixed methods study was conducted to examine the feasibility, usability, and acceptability ofLACTOR among breastfeeding mothers. Eligible mothers were asked to enter their breastfeeding data into thesystem daily for 30 days and then submit an online system evaluation survey. Twenty-six mother/infant dyads completed the study. Feasibility of the system was established by the mothers' compliance in enteringbreastfeeding data. The system proved to be user-friendly. The mothers said that the monitoring was beneficial and gave them an opportunity to track their children's feeding patterns and detect any problems early. Mothers also appreciated the notifications and interventions received through the system. We concluded that the system is feasible and acceptable among breastfeeding mothers and a promising tool for maintaining communication between mothers and lactation consultants.](javascript:;)

**Times Cited:**[**1**](http://apps.webofknowledge.com/CitingArticles.do?product=WOS&SID=N2KyGKyezX6CS3zbdCp&search_mode=CitingArticles&parentProduct=WOS&parentQid=34&parentDoc=1&REFID=440486939&excludeEventConfig=ExcludeIfFromNonInterProduct)*(from Web of Science Core Collection)*

# **Bog:** Breast Augmentation: Principles and Practice, der står også noget om grossman-roudner measuring device

<https://books.google.dk/books?id=4BOrAg3hkGIC&pg=PA30&lpg=PA30&dq=grossman-roudner+measuring+device&source=bl&ots=mRQv6JuvVP&sig=rnp3sOCi0J1Lw7v4TZqwK0jLzGg&hl=da&sa=X&sqi=2&ved=0ahUKEwjxjdXIuqLPAhWFGCwKHe18DugQ6AEIPjAE#v=onepage&q=grossman-roudner%20measuring%20device&f=false>

<https://mymomsense.com/>

<http://milksense.com/>