

# A Meta-analysis Comparing Deep Inferior Epigastric Perforator Flaps and Latissimus Dorsi Flaps in Breast Reconstruction

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**Background:** Deep inferior epigastric perforator (DIEP) flaps and latissimus dorsi (LD) flaps are two widely used breast reconstruction techniques, each with distinct advantages and limitations. This meta-analysis aims to compare patient satisfaction and incidence of complications between these two techniques to inform clinical decision-making.

**Methods:** PubMed, Scopus, and Web of Science were searched for relevant studies. We included studies with data comparing DIEP and LD flaps, BREAST-Q patient satisfaction, and complications. Statistical analyses were performed using RevMan 5.4.

**Results:** The search yielded 788 studies, of which 13 were included in the meta-analysis. A total of 2128 patients were analyzed, with 1378 undergoing DIEP flap reconstruction and 750 receiving LD flap reconstruction. The analysis showed greater improvement with DIEP flaps in breast satisfaction [mean difference (MD) = 9.48, 95% confidence interval (CI) = 6.90–12.05,  $P < 0.00001$ ], physical well-being (MD = 5.95, 95% CI = 2.98–8.92,  $P < 0.0001$ ), and satisfaction with outcome (MD = 9.36, 95% CI = 3.01–15.71,  $P = 0.004$ ). Nonetheless, DIEP flaps had higher rates of skin flap necrosis [risk ratio (RR) = 4.27, 95% CI = 2.44 to 7.46,  $P < 0.00001$ ], wound dehiscence (RR = 5.12, 95% CI = 2.53–10.35,  $P < 0.00001$ ), and reoperation (RR = 2.24, 95% CI = 1.58–3.16,  $P < 0.00001$ ) but lower seroma rates (RR = 0.27, 95% CI = 0.10–0.74,  $P = 0.01$ ).

**Conclusions:** DIEP flap reconstruction offers superior patient satisfaction compared with LD flap reconstruction, despite a higher incidence of certain complications. (*Plast Reconstr Surg Glob Open* 2024; 12:e6206; doi: [10.1097/GOX.00000000000006206](https://doi.org/10.1097/GOX.00000000000006206); Published online 9 October 2024.)

## INTRODUCTION

Breast reconstruction after mastectomy is a crucial component of comprehensive breast cancer treatment, aimed not only at restoring the breast's physical appearance but also at improving the patient's psychological well-being and overall quality of life.<sup>1</sup> Among the various reconstructive options available, the deep inferior

epigastric perforator (DIEP) flap and the latissimus dorsi (LD) flap are two commonly utilized techniques that have garnered significant attention in clinical practice due to their distinct advantages and limitations.<sup>2–5</sup>

The DIEP flap, which involves transferring skin and fat from the lower abdomen to the chest while preserving the underlying abdominal muscles, is particularly praised for its ability to produce a natural breast contour and minimize donor site morbidity. This technique allows for the preservation of muscle function in the abdominal area, which is beneficial for patients in terms of postoperative recovery and long-term physical activity.<sup>6</sup> The aesthetic outcomes of the DIEP flap are often highly satisfactory, with patients reporting a natural feel and appearance of the reconstructed breast. Nonetheless, the complexity of the procedure, which requires microsurgical expertise,

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can lead to longer operative times and a steeper learning curve for surgeons.<sup>7</sup>

In contrast, the LD flap involves the transfer of muscle, skin, and fat from the upper back to the chest. This technique is valued for its reliability and straightforward surgical approach. The LD flap is often associated with fewer microsurgical complications, making it a preferred option in cases where microsurgical expertise or resources are limited. However, the use of the LD muscle can result in potential functional impairment of the shoulder, which may significantly affect activities involving the upper body.<sup>8</sup> Additionally, the aesthetic results of the LD flap may not always match the natural contour and feel provided by the DIEP flap.<sup>9</sup>

It is important to note, however, that the LD flap is becoming infrequently used as a primary means of breast reconstruction. More commonly, it is used in combination with fat grafting or implant. Nonetheless, the LD flap is a useful option for patients with unsuitable donor sites for abdominally based flaps, such as very thin or extremely obese individuals, or those who have undergone previous abdominal body contouring procedures. High-volume fat grafting has made it possible to use the flap in cases that were previously challenging, such as for medium- or large-breasted patients seeking complete autologous reconstruction but lacking sufficient volume in their back without an implant. Additionally, LD flaps are beneficial when microvascular tissue transfer is not preferred or available.<sup>10</sup> Understanding these typical indications is essential for interpreting the outcomes and complications associated with LD flaps in comparison to DIEP flaps. This meta-analysis aims to systematically compare patient satisfaction and the incidence of complications between DIEP and LD flaps in breast reconstruction, offering insights for clinicians and patients during the decision-making process.

## METHODS

The protocol for this article was registered on PROSPERO (CRD42024542915), and the regulations of the preferred reporting items of systematic reviews and meta-analysis (PRISMA) were followed.<sup>11</sup>

### Search Strategy

A literature search of PubMed, Scopus, and Web of Science was conducted on April 4, 2024, using key terms such as (((latissimus AND dorsi) OR (Id)) AND ((deep AND inferior AND epigastric AND perforator AND flap) OR (diep))) to identify relevant studies.

### Inclusion and Exclusion Criteria

These criteria aim to ensure the inclusion of relevant studies while excluding those that do not meet the scope or quality standards of the analysis.

#### Inclusion Criteria

This meta-analysis encompassed observational studies written in English or French that included case-control, cohort, and cross-sectional studies involving adult patients (≥18 y) undergoing breast reconstruction with either a DIEP flap or LD flap and providing information

## Takeaways

**Question:** Compare patient satisfaction and complication rates between deep inferior epigastric perforator (DIEP) flaps and latissimus dorsi (LD) flaps in breast reconstruction.

**Findings:** This meta-analysis included 13 studies with 2128 patients. The DIEP flaps were associated with significantly higher overall satisfaction compared with LD flaps. Nonetheless, DIEP flaps also showed higher rates of skin flap necrosis and fat necrosis but had lower rates of seroma formation.

**Meaning:** DIEP flaps offer superior patient satisfaction but come with a higher risk of certain complications compared with LD flap reconstruction.

on the incidence of complications and BREAST-Q patient satisfaction.

### Exclusion Criteria

Commentaries, reviews, systematic reviews, meta-analyses, case reports, case series, or studies involving animal research were not included. Upon encountering duplicate studies, we included the most recent studies with the greatest number of participants.

### Study Selection

Two independent reviewers evaluated the studies based on our criteria. If a consensus could not be reached, a third independent reviewer was consulted to settle the conflict.

### Data Extraction and Quality Assessment

Two reviewers independently extracted the data from each study. To ensure accuracy, the data were then compared. If a consensus could not be reached, a third independent reviewer was consulted to resolve the conflict. The following details were extracted from the eligible studies to create the baseline and summary data: the first author's last name, the year the study was published, the study design, the number of patients, the number of breasts, the patients' age, their body mass index, indication of mastectomy (prophylactic or therapeutic), radiation, chemotherapy, timing (immediate or delayed), follow-up time, and the conclusion. For the outcomes data, the following information was extracted: breast satisfaction, psychosocial well-being, physical well-being of the chest, sexual well-being, satisfaction with outcome, skin flap necrosis, fat necrosis, wound infection, wound dehiscence, hematoma, seroma, reoperation, and flap/reconstructive failure. The quality of the included articles was assessed according to the Newcastle-Ottawa scale, where a score of 7 or more was considered a high-quality article. In contrast, a score of 6 or less was deemed low.<sup>12</sup>

### Data Analysis

The analysis was performed using RevMan version 5.4. Continuous data were represented as mean differences (MDs), and dichotomous data were represented as risk ratios (RRs), each with their respective 95% confidence

intervals (CIs). A fixed-effect model was applied when the data exhibited insignificant heterogeneity. In contrast, a random-effect model was used in cases of significant heterogeneity ( $P < 0.05$ ). To address heterogeneity, a leave-one-out test was utilized. Results were considered significant at a  $P$  value less than 0.05.

### Definition of Heterogeneity

Heterogeneity is the variation or diversity in outcomes among the studies included in the meta-analysis. It may be due to several factors, such as the characteristics of the participants, study designs, the methods of analysis, or other sources of bias.<sup>13</sup>

## RESULTS

### Summary of Studies

After a comprehensive search of the literature, 788 studies were found, and after removal of 296 duplicates, 492 were eligible for title and abstract screening. Of these, 427 were irrelevant and 65 studies were eligible for full-text screening. Finally, 13 studies<sup>14–26</sup> were included in the meta-analysis after full-text screening, as shown in the

PRISMA<sup>11</sup> diagram in Figure 1. (See table, Supplemental Digital Content 1, which displays the overall quality of the included studies, except for one study which was of fair quality. <http://links.lww.com/PRSGO/D534>.)

The total number of patients included in the study is 2128 patients, 1378 patients in the DIEP flap group and 750 patients in the LD flap group. Other baseline data are shown in Table 1.

### BREAST-Q Outcomes

#### Breast Satisfaction

DIEP flaps showed a statistically significant increase in breast satisfaction compared with LD flaps (MD = 9.48, 95% CI = 6.90–12.05,  $P < 0.00001$ ). No significant heterogeneity was detected ( $P = 0.06$ ,  $I^2 = 56\%$ ), as illustrated in Figure 2.

#### Psychosocial Well-being

Pooled analysis showed no statistically significant difference between the DIEP flap and LD flap regarding psychosocial well-being (MD = 4.16, 95% CI = –0.70 to 9.02,  $P = 0.09$ ). We observed significant heterogeneity ( $P = 0.0004$ ,  $I^2 = 80\%$ ), as shown in Figure 3. This was resolved by a leave-one-out test, removing Durry et al<sup>18</sup> ( $P = 0.14$ ,  $I^2 = 45\%$ ).

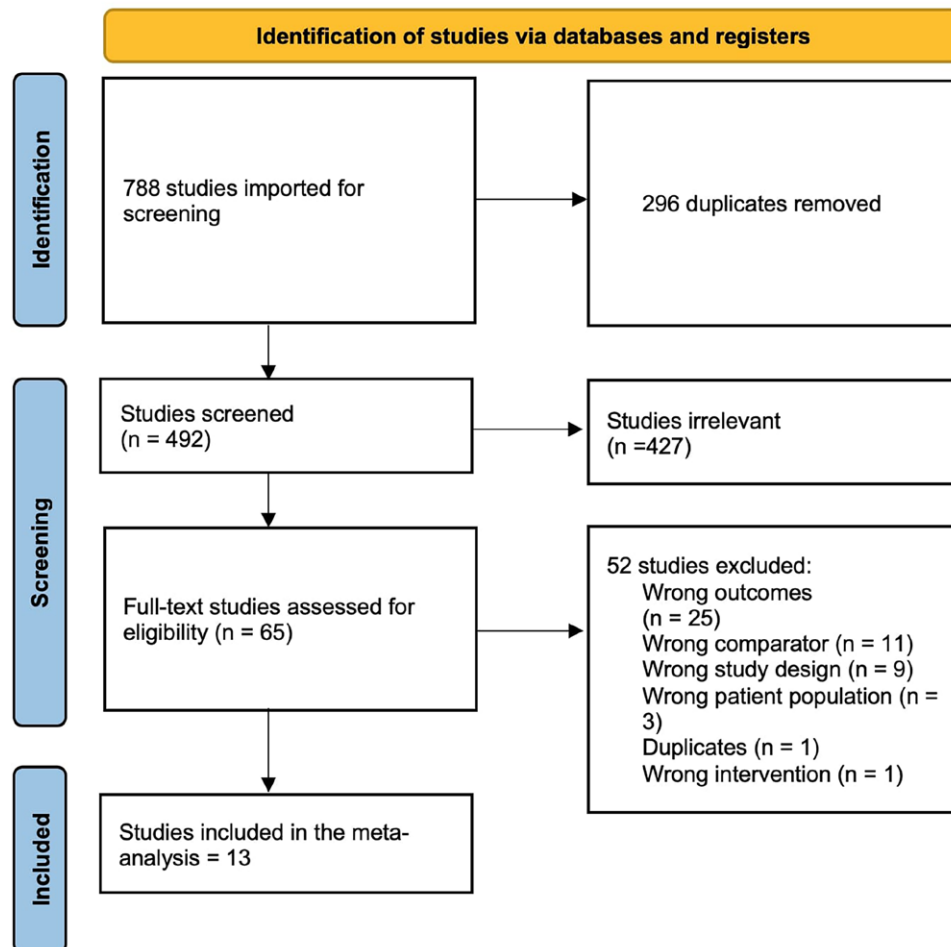


Fig. 1. PRISMA flow diagram.

Table 1. Baseline Characteristics of Included Studies

Study Author, Year	No. Patients		No. Breasts		Age (y)		BMI		Radiation at Any Point		Immediate or Delayed Reconstruction		Follow-up Time (mo)	
	DIEP	LD	DIEP	LD	DIEP	LD	DIEP	LD	DIEP	LD	DIEP	LD	DIEP	LD
Löfstrand, 2023 <sup>14</sup>	118	135	142	159	50	53	<30	<30	115	124	All delayed	All delayed	96	96
Brorson, 2022 <sup>15</sup>	14	12	14	12	50	51	<30	<30	14	12	All delayed	All delayed	96	96
Demiri, 2020 <sup>16</sup>	99	36	99	36	49.2	40.1	28.4	25.6	80	30	NA	NA	14-68	14-68
Bennett, 2018 <sup>17</sup>	390	71	552	87	51	53.5	28.6	26.1	166	45	325 immediate; 65 delayed	48 immediate; 23 delayed	24	24
Durry, 2018 <sup>18</sup>	13	5	16	5	49.2	60	24.5	26.5	NA	NA	All immediate	All immediate	31	38
Thorarinnsson, 2017 <sup>19</sup>	110	111	110	111	54	57	25.9	25.3	72	98	All delayed	All delayed	25	25
Menez, 2017 <sup>20</sup>	42	48	NA	NA	51.7		NA	NA	NA	NA	13 immediate; 70 delayed		45	45
Wilkins, 2016 <sup>21</sup>	365	73	497	88	51.4	53.5	28.7	26	161	46	300 immediate; 65 delayed	49 immediate; 24 delayed	12	12
Thorarinnsson, 2015 <sup>22</sup>	113	104	NA	NA	54.2	55.3	26	25.1	86	101	All delayed	All delayed	31.2	32.2
Yang, 2015 <sup>23</sup>	62	49	NA	NA	<35 (5); >35 (56)	<35 (20); >35 (29)	18-24 (55); 24-28 (5); >28 (2)	18-24 (44); 24-28 (4); >28 (1)	NA	NA	57 immediate; 5 delayed	49 immediate	24	2418
Benditte-Klepetchko, 2014 <sup>24</sup>	18	64	22	65	50.2	52.7	NA	NA	NA	NA	3 immediate; 15 delayed	26 immediate; 38 delayed	40.4	40.5
Pluvy, 2014 <sup>25</sup>	33	27	NA	NA	48.7	49.5	25	25	21	15	9 immediate; 24 delayed	15 immediate; 12 delayed	24	54
Wijayanayagam, 2008 <sup>26</sup>	10	6	10	6	43.7		NA	NA	NA	NA	All immediate	All immediate	NA	NA

NA, not available.

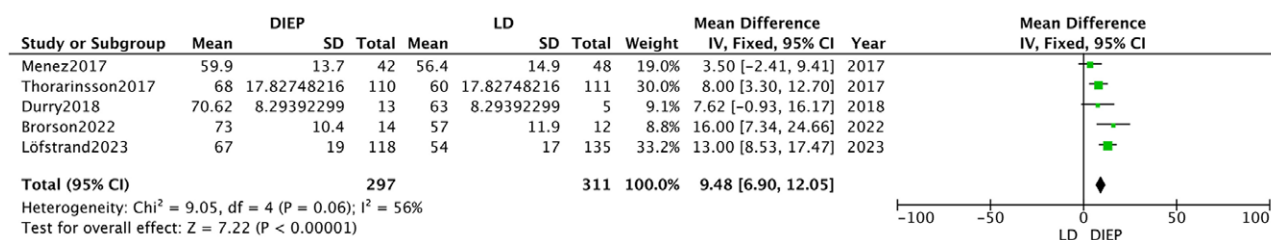


Fig. 2. Breast satisfaction forest plot.

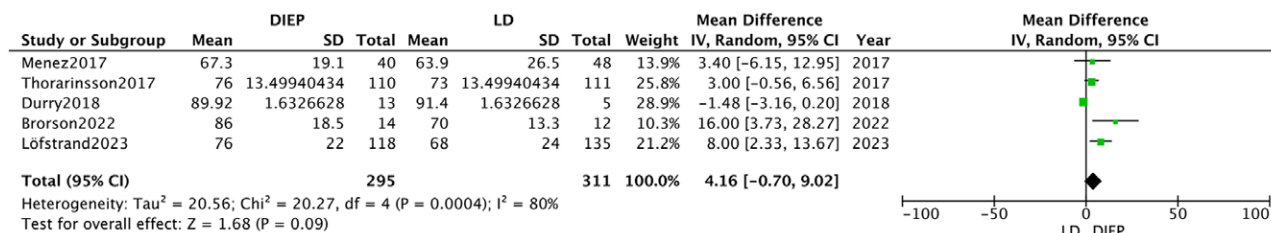


Fig. 3. Psychosocial well-being forest plot.

Accordingly, the revised analysis showed a statistically significant association between the DIEP flap and increased psychosocial well-being compared with the LD flap ( $MD = 6.01$ , 95%  $CI = 1.48$ – $10.54$ ,  $P = 0.009$ ).

#### Physical Well-being of the Chest

The DIEP flap significantly improved physical well-being of the chest compared with the LD flap ( $MD = 5.95$ , 95%  $CI = 2.98$ – $8.92$ ,  $P < 0.0001$ ). No significant heterogeneity was observed ( $P = 0.15$ ,  $I^2 = 40\%$ ), as illustrated in Figure 4.

#### Sexual Well-being

The pooled analysis showed a statistically significant association between the DIEP flap and increased sexual well-being compared with the LD flap regarding sexual well-being ( $MD = 8.70$ , 95%  $CI = 1.06$ – $16.34$ ,  $P = 0.03$ ). We observed significant heterogeneity among the studies ( $P = 0.02$ ,  $I^2 = 71\%$ ), as shown in Figure 5. This was resolved by a leave-one-out test, removing Brorson et al<sup>15</sup> ( $P = 0.23$ ,  $I^2 = 31\%$ ). The revised analysis also showed a statistically significant improvement in sexual well-being with DIEP flaps compared with LD flaps ( $MD = 5.76$ , 95%  $CI = 0.60$ – $10.91$ ,  $P = 0.03$ ).

#### Satisfaction with Outcome

The DIEP flap showed higher satisfaction with outcomes ( $MD = 11.97$ , 95%  $CI = 4.89$ – $19.06$ ,  $P = 0.0009$ ) with significant heterogeneity ( $P = 0.01$ ,  $I^2 = 69\%$ ). After excluding Brorson et al<sup>15</sup> to resolve heterogeneity, the improvement remained significant ( $MD = 9.36$ , 95%  $CI = 3.01$ – $15.71$ ,  $P = 0.004$ ;  $P = 0.07$ ,  $I^2 = 58\%$ ) (Fig. 6).

#### Complication Outcomes

##### Skin Flap Necrosis

Higher incidence with DIEP flaps ( $RR = 4.27$ , 95%  $CI = 2.44$  to  $7.46$ ,  $P < 0.00001$ ). No significant heterogeneity ( $P = 0.15$ ,  $I^2 = 36\%$ ), as illustrated in Figure 7.

##### Fat Necrosis

Higher incidence with DIEP flaps ( $RR = 7.03$ , 95%  $CI = 2.61$ – $18.94$ ,  $P = 0.0001$ ). No significant heterogeneity was observed ( $P = 0.73$ ,  $I^2 = 0\%$ ), as illustrated in Figure 8.

##### Wound Infection

The pooled analysis showed no statistically significant difference between the DIEP and LD flaps regarding incidence of wound infection ( $RR = 1.01$ , 95%  $CI = 0.48$ – $2.11$ ,  $P = 0.99$ ). We observed significant heterogeneity ( $P = 0.01$ ,  $I^2 = 65\%$ ), as shown in Figure 9. This was resolved by a leave-one-out test, removing Löfstrand et al<sup>14</sup> ( $P = 0.14$ ,  $I^2 = 42\%$ ). The revised analysis still showed no statistically significant difference ( $RR = 0.78$ , 95%  $CI = 0.39$ – $1.55$ ,  $P = 0.48$ ).

##### Wound Dehiscence

There was higher incidence of wound dehiscence with DIEP flaps ( $RR = 5.12$ , 95%  $CI = 2.53$ – $10.35$ ,  $P < 0.00001$ ). No significant heterogeneity was observed ( $P = 0.46$ ,  $I^2 = 0\%$ ), as illustrated in Figure 10.

##### Hematoma

No significant difference in hematoma incidence ( $RR = 1.46$ , 95%  $CI = 0.78$  to  $2.73$ ,  $P = 0.23$ ) was observed. No significant heterogeneity ( $P = 0.58$ ,  $I^2 = 0\%$ ) was observed, as shown in Figure 11.

##### Seroma

The pooled analysis showed no statistically significant difference between the DIEP flap and LD flap regarding incidence of seroma ( $RR = 0.42$ , 95%  $CI = 0.14$ – $1.22$ ,  $P = 0.11$ ). Significant heterogeneity was observed ( $P = 0.04$ ,  $I^2 = 61\%$ ), as shown in Figure 12. This was resolved by a leave-one-out test, excluding Yang et al<sup>23</sup> ( $P = 0.26$ ,  $I^2 = 25\%$ ). Revised analysis showed a statistically significant



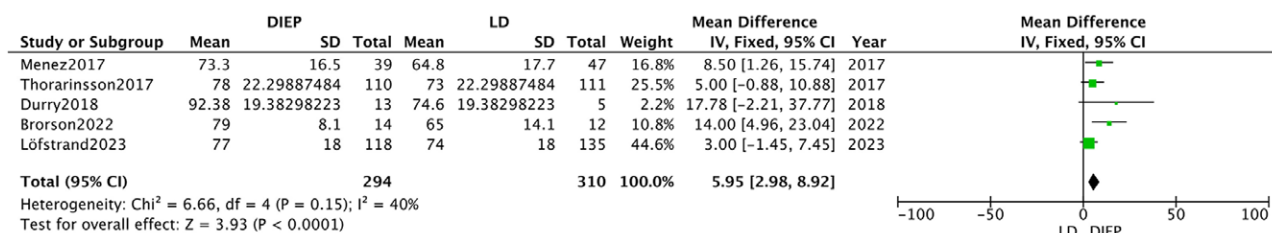


Fig. 4. Physical well-being of the chest forest plot.

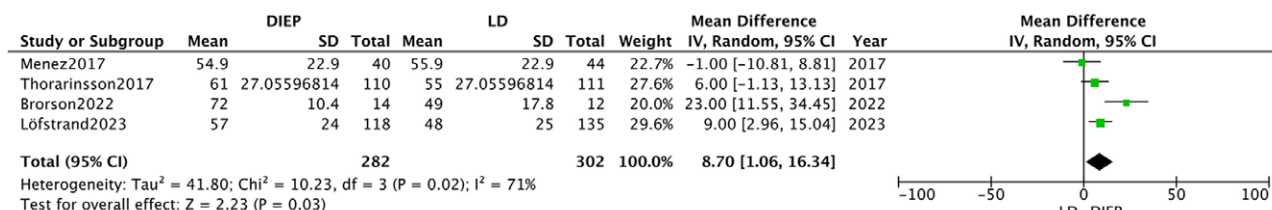


Fig. 5. Sexual well-being forest plot.

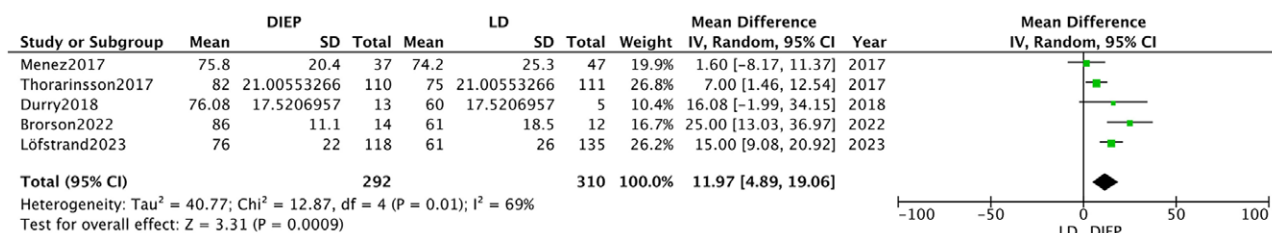


Fig. 6. Satisfaction with outcome forest plot.

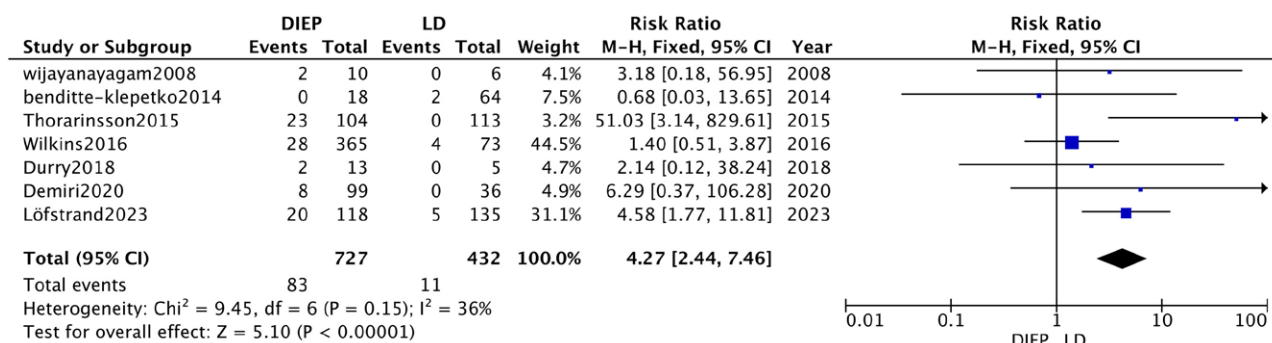


Fig. 7. Skin flap necrosis forest plot.

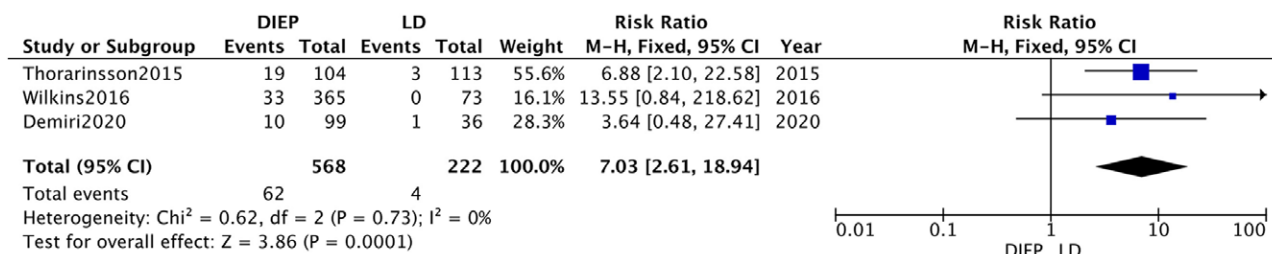


Fig. 8. Fat necrosis forest plot.

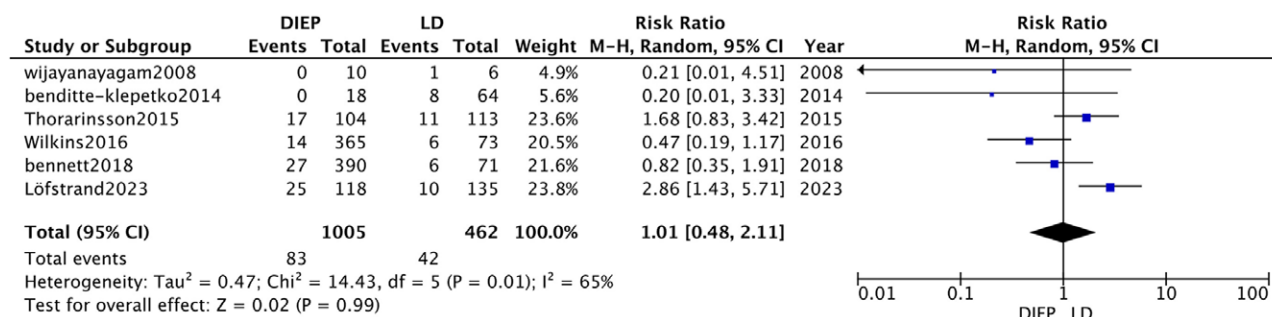


Fig. 9. Wound infection forest plot.

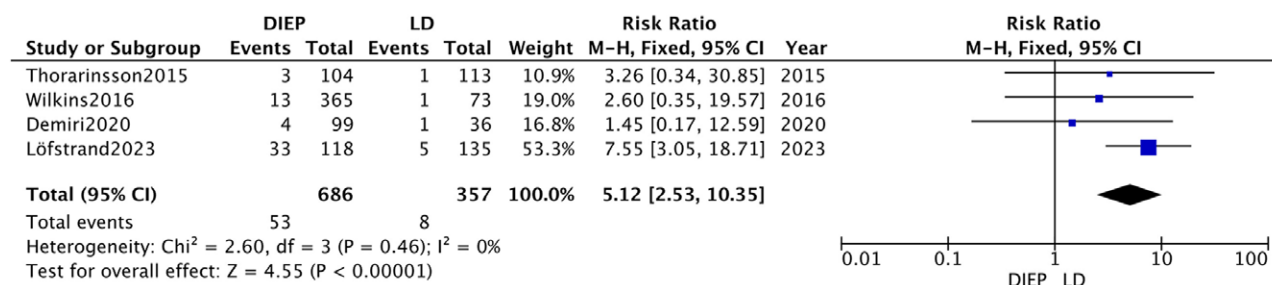


Fig. 10. Wound dehiscence forest plot.

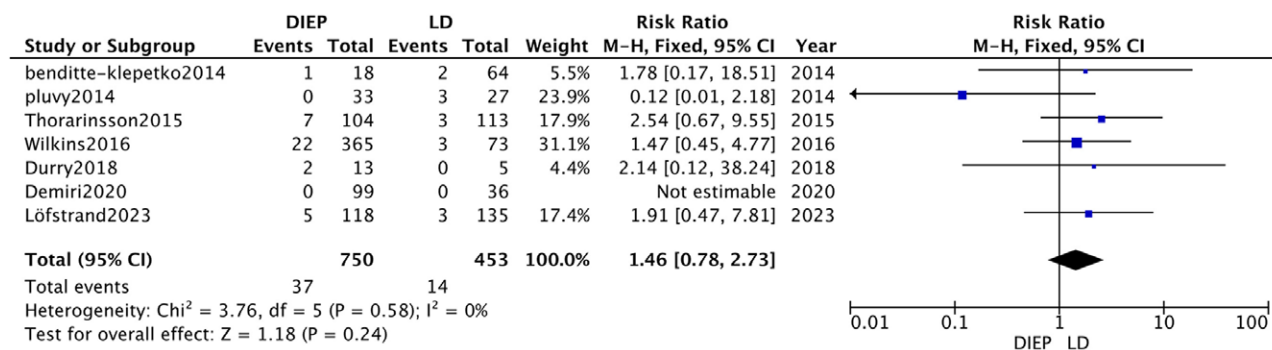


Fig. 11. Hematoma forest plot.

association between the DIEP flap and lower incidence of seroma compared with the LD flap ( $RR = 0.27$ ,  $95\% \text{ CI} = 0.10\text{--}0.74$ ,  $P = 0.01$ ).

#### *Incidence of Reoperation*

There was higher incidence of reoperation with DIEP flaps ( $RR = 2.24$ ,  $95\% \text{ CI} = 1.58$  to  $3.16$ ,  $P < 0.00001$ ). No significant heterogeneity was detected among the studies ( $P = 0.53$ ,  $I^2 = 0\%$ ), as illustrated in Figure 13.

#### *Flap or Reconstructive Failure*

There was no significant difference in flap or reconstructive failure ( $RR = 1.24$ ,  $95\% \text{ CI} = 0.45$  to  $3.37$ ,  $P = 0.68$ ). No significant heterogeneity was observed ( $P = 0.34$ ,  $I^2 = 11\%$ ), as shown in Figure 14.

## DISCUSSION

This meta-analysis provides a comprehensive comparison of patient satisfaction and complication rates between DIEP flaps and LD flaps in breast reconstruction. By analyzing data from 13 studies with 2128 patients, we aimed to offer insights that inform clinical practice and improve patient outcomes.

The findings from our analysis reveal a clear preference for DIEP flaps over LD flaps in terms of all forms of satisfaction in BREAST-Q outcomes but not in terms of complication rates. This is likely due to the superior aesthetic results and the preservation of muscle function associated with DIEP flaps.<sup>27</sup> Unlike LD flaps, which involve muscle transfer and can lead to functional deficits,<sup>8</sup> DIEP flaps use only skin and fat, providing a more natural reconstruction with fewer long-term

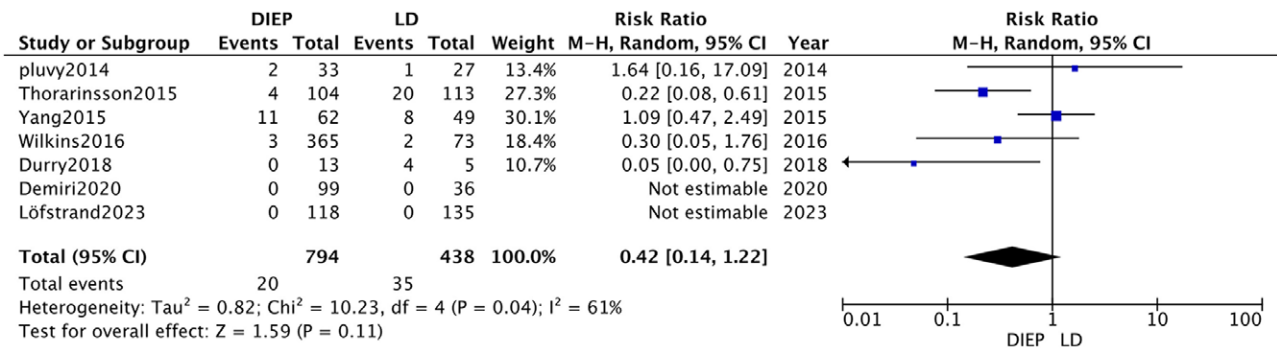


Fig. 12. Seroma forest plot.

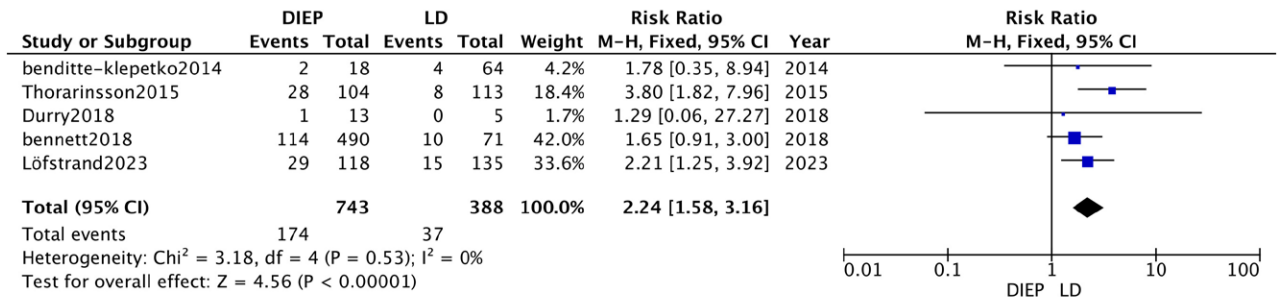


Fig. 13. Incidence of reoperation forest plot.

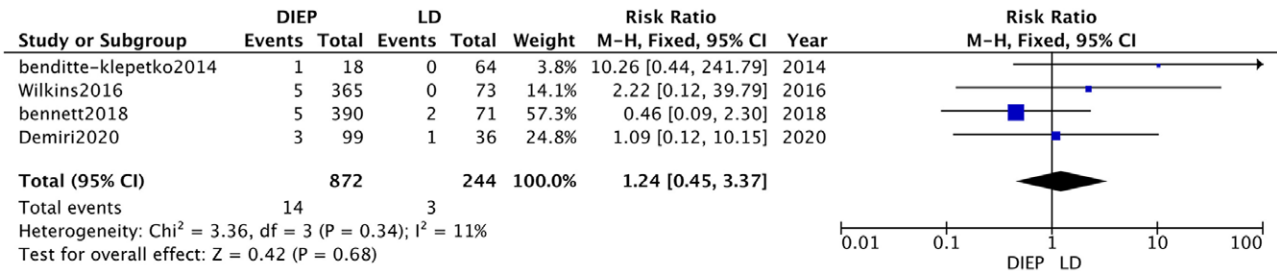


Fig. 14. Flap or reconstructive failure forest plot.

donor site morbidities. These findings align with existing literature emphasizing the aesthetic and functional benefits of DIEP flaps.<sup>28</sup> This was further supported by the included study, Brorson et al,<sup>15</sup> which was the only included study that showed both preoperative and postoperative BREAST-Q outcomes. A significant finding was the breast satisfaction improvement in the postoperative DIEP group compared with preoperative (73 versus 38, respectively). In contrast, the LD group was 57 and 46, respectively, a much less significant improvement compared with the DIEP group.

Physical well-being of the chest was also significantly better in patients receiving DIEP flaps. This can be attributed to the muscle-sparing nature of the DIEP procedure,<sup>29</sup> which minimizes functional impairment compared with the LD flap technique. Similarly, DIEP flaps were associated with better sexual well-being in all

studies except Menez et al,<sup>20</sup> which showed no significant difference. This finding persisted even after addressing heterogeneity.<sup>20</sup>

Accordingly, DIEP flaps were significantly better than LD flaps in terms of overall outcome satisfaction, with an MD of 11.97, rendering this the greatest MD from all the BREAST-Q outcomes in our study. Despite the advantages in satisfaction and well-being, DIEP flaps were associated with higher incidences of certain complications. Notably, the risk of skin flap necrosis and fat necrosis was significantly elevated in DIEP flaps compared with LD flaps. These complications reflect the technical complexity and vascular challenges inherent in DIEP flap procedures.<sup>30</sup> Nonetheless, it is important to note the differences in tissue composition that affect the incidence of fat necrosis.<sup>31</sup> DIEP flaps, composed solely of skin and fat, are more prone to fat necrosis. In contrast, LD flaps, particularly myocutaneous and purely



muscle LD flaps, contain very little to no subcutaneous fat, making fat necrosis a less relevant outcome for these reconstructions. This distinction is important for interpreting our findings accurately. Future studies should consider these tissue composition differences when comparing outcomes, to ensure more precise and relevant conclusions.

Although wound dehiscence was another complication more common with DIEP flaps, they showed a lower risk of seroma formation postadjustment. This may be due to the absence of muscle harvesting, which reduces potential dead space and seroma formation compared with LD flaps.<sup>32</sup> A large study<sup>3</sup> with 142 LD flaps also concluded that the most common complication with LD flaps was seroma formation, with 26% of their patients experiencing it and 19% of all their patients requiring aspiration. Notwithstanding, according to our study, the rate of reoperation was significantly higher for DIEP flaps compared with LD flaps. This is in line with other large cohort studies experiencing greater than 15% reoperation rates,<sup>33</sup> reflecting the complexity of these reconstructions.<sup>34</sup>

Importantly, a systematic review focusing on donor site satisfaction by Lofstrand et al<sup>35</sup> concluded that patients were less satisfied with donor site outcomes in the DIEP group compared with the LD group due to abdominal bulging and scarring, though impairment due to muscular weakness was more common with LD.

The results of this meta-analysis have important clinical implications. Although DIEP flaps provide superior satisfaction and well-being outcomes, they come with a higher risk of certain complications and reoperations. Therefore, patient selection should consider individual risk factors, preferences, and the surgeon's experience with DIEP flap techniques. LD flaps remain a viable option, particularly in patients who may not be ideal candidates for the technically demanding DIEP procedure. Future research should focus on refining surgical techniques to reduce the complication rates associated with DIEP flaps.

Our study included a large sample size of 2128 patients. The overall quality of the included studies was good in all studies except for one study which was of fair quality. To the best of our knowledge, this is the first meta-analysis that directly compares these two widely performed breast reconstruction techniques.

Despite the comprehensive nature of this meta-analysis, several limitations must be acknowledged. One significant limitation is the heterogeneity among some of the reported outcomes. Also, all included studies were either retrospective or prospective cohort studies. Variability in study design, patient populations, surgical techniques, and outcome measures can introduce bias and affect the robustness of our findings. Although we used statistical techniques, such as leave-one-out sensitivity analysis, to address heterogeneity, residual variability may still impact the generalizability of our results.

One significant limitation of this meta-analysis is the heterogeneity in the use of LD flaps across the included studies. Specifically, Benditte-Klepetchko et al<sup>24</sup> included both LD alone (64 patients) and LD with an implant (five patients), but due to the very small population for the latter, only LD was included in our primary analysis. Demiri

et al<sup>16</sup> involved fat-augmented LD flaps, which differ from standard LD flaps and can influence both aesthetic outcomes and complication rates. Löfstrand et al<sup>14</sup> focused exclusively on LD flaps with an implant, differing from most other included studies that focused on LD flaps without implants. The inclusion of implants in this study could affect both patient satisfaction and complication rates, making direct comparisons challenging.

The durations of follow-up in the included studies varied widely, ranging from 1-<sup>21</sup> to 8-year<sup>14,15</sup> follow-up periods. This variation can affect the assessment of complications and patient satisfaction, as some outcomes, particularly those related to long-term satisfaction and late complications, may only become evident after extended follow-up.

The outcomes of breast reconstruction surgery are highly dependent on the surgeon's expertise and experience. The studies included in our analysis may reflect varying levels of surgical skill, which can significantly impact the results. High-volume centers with specialized microsurgeons may report better outcomes for DIEP flaps, which require advanced technical skills compared with LD flaps. Future research should account for the influence of surgical expertise on outcomes.

## CONCLUSION

In conclusion, this meta-analysis substantiates the benefits of DIEP flaps in enhancing patient satisfaction and overall well-being compared with LD flaps, despite a higher incidence of specific complications.

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## DISCLOSURE

*The authors have no financial interest to declare in relation to the content of this article.*

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