

# An Overview of Mastectomy and Its Types in Treatment of Breast Cancer

Parmiss Adyani Kalvanagh<sup>1</sup> | Yousef Adyani Kalvanagh<sup>2</sup> \*

<sup>1</sup>Postgraduate Student, experimental sciences, Tabriz, Iran

<sup>2</sup>Breast Surgery Fellowship, Tabriz University of Medical Sciences, Tabriz, Iran

\*Corresponding Author E-mail: [Adyani.Yousef.Kalvanagh@Gmail.Com](mailto:Adyani.Yousef.Kalvanagh@Gmail.Com)

Received: 02-01-2023, Revised: 07-02-2023, Accepted: 19-03-2023

## ABSTRACT

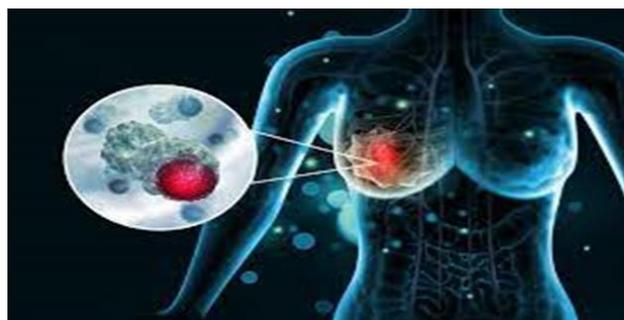
Mastectomy is a method of treating breast cancer performed by surgically removing the breast and sometimes its adjacent tissues. In the past, radical mastectomy was the standard treatment for breast cancer, removing the entire breast, axillary lymph nodes, and some of chest muscles below the breast, but surgical advances over the last 2 decades have given women more options than ever before. Less invasive breast-conserving treatments are available to many women. There are different types of mastectomies to deal with different medical conditions. Mastectomy can treat different types of breast cancer. Women who do not have cancer, but are at very high risk for breast cancer for any reason, may also have a mastectomy. This procedure may also be used as a cancer prevention method in people who are prone to breast cancer. Preventive mastectomy will reduce the risk of cancer by 90%.

**Keywords:** Mastectomy, Breast cancer, Surgery, Treatment.

## Introduction

One of the most common types of cancer is breast cancer, which many women suffer. Usually, this disease does not have any special signs or symptoms at first, but breast cancer can progress over

time. Therefore, it will have irreparable consequences for health. One of the ways that will be very helpful to prevent the development of breast cancer is mastectomy surgery. For people who are in the initial stage of this disease, this method can have a very good effect.



**Figure 1.** Overview of breast conditions

Many people with breast cancer have successfully undergone mastectomy surgery. To check the progress of this disease and the necessary diagnosis to perform the essential surgeries, the best thing is to perform tests related to mammography, ultrasound, and radiology. Therefore, it is necessary to pay enough attention to the examinations and take this matter seriously.

### What is a mastectomy?

Breast tissue surgery to treat or prevent breast cancer is performed in two ways: lumpectomy and mastectomy. In the lumpectomy method, usually the least required tissue is removed from the breast. On the other hand, it removes tumor and a margin of healthy tissue around it. Therefore, the surgeon can remove a small part of the breast tissue. On the other hand, mastectomy is a method used to prevent or treat cancer, whether the tumor is benign or malignant, the main goal of this surgery is to preserve the breast tissue. This method is a type of surgery in which both breasts are completely removed to prevent the progression of cancer. Of course, the amount of breast tissue removed in the mastectomy method depends on the extent of tumor and the degree of tissues involvement around the breast. Sometimes, the armpit lymph nodes and a number of breast muscles are checked and removed if necessary. There are different types of mastectomies, which we will discuss in full in the following sections.

### Who should have a mastectomy?

➤ If the tumor is large, the use of radiation therapy has not been

effective, or radiation therapy is not possible at all.

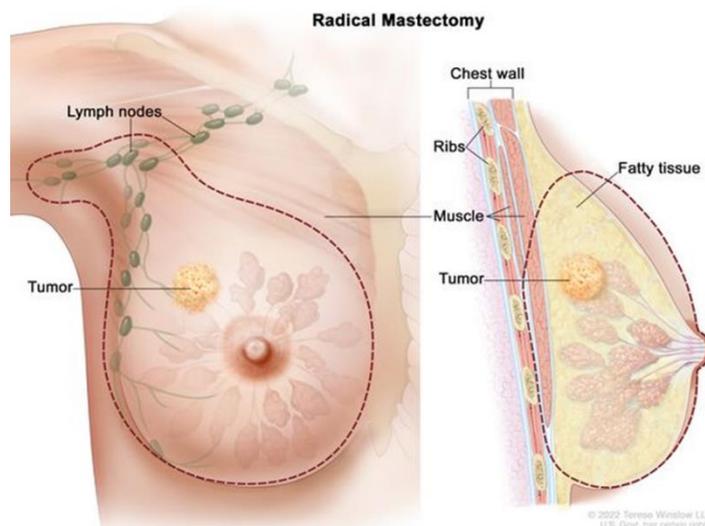
- If the tumor is in more than one area in the breast, the size of the breast can play a role in deciding this relationship.
- In people whose cancerous mass is bigger than the breast tissue.

Of course, as it was mentioned, ultrasound, mammography, and radiology tests as well as examinations are very helpful for diagnosing the disease progress or even the size of tumors. In these three methods, the breast tissue and its surrounding areas are carefully examined and higher quality images are provided to people. According to the information recorded in the image, the specialist doctor will determine whether you need mastectomy surgery or not. Performing this surgery in the early stages of the disease will have a great impact on people's recovery.

### Types of mastectomy methods

**1. Simple mastectomy:** In this method, all the breast tissue is removed, but the lymph nodes and muscles under the breast are not removed. In simple mastectomy surgery, lymph nodes may be sampled during the operation.

**2. Radical mastectomy:** In mastectomy, the biggest type of surgery is radical mastectomy. In this method, all breast tissue, nipple, areola around it, breast skin, and armpit lymph nodes are removed. In the radical type, the muscles under the breast are removed. Several years ago, the radical mastectomy method was known as a standard procedure, but today, with the advancement of science in medical fields and the use of new auxiliary methods, it is used less.



**Figure 2.** Radical mastectomy.

**3. Incomplete mastectomy:** In this method, the surgeon removes the part of breast that is affected by cancer, plus the surrounding tissues. In incomplete mastectomy, more tissue is removed than lumpectomy. Incomplete mastectomy is also known as partial mastectomy.

**4. Skin-sparing mastectomy:** In a skin-sparing mastectomy, the nipple, surrounding tissue, and lymph nodes are removed, but the skin of the breast is preserved. Many women who intend to reconstruct the breast choose this method.

**5. Mastectomy with protection of the skin, nipple, and surrounding tissue:** This method is like a skin protection mastectomy with the difference that the nipple and brown tissue around it are further preserved. Usually, in this method, an incision is made under the breast in an area called the breast fold. Determining which method of mastectomy people should perform is only possible with the help of examinations and accurate diagnosis by the doctor.

### Benefits of mastectomy

**1. Preventing the progression of cancer:** Maybe many people get stressed when they hear the name of surgery and avoid doing it, but it is better to pay

attention to the fact that if cancer masses are not treated and checked, these masses will grow bigger and affect the tissues. Adjacent or other parts of the body go. Therefore, by performing mastectomy surgery and removing cancerous tissue, breast cancer will not progress and the mass size will not increase. To ensure the health of breast tissue after mastectomy, the most suitable thing is to do imaging examinations. The use of specialized equipment as well as cooperation with expert and experienced medical staff at Taba Medical Imaging Center has made it possible to easily and accurately diagnose problems related to diseases of important tissues such as breast.

**2. Improving the process of the disease:** Diagnosing the disease and performing mastectomy surgery in the early stages will have a great impact on the health of breast tissue. Some people may need radiation therapy and chemotherapy after this procedure. Using these methods, you will prevent the disease progress and you will be more confident about the breast health and its adjacent tissues.

### Possible complications after mastectomy

After every operation, there is a possibility of problems and complications. Therefore, mastectomy surgery is not an exception to this rule, but most of the problems are minor and some of them can be serious. These complications include blood clotting. To prevent this, nurses make the patient walk and do leg exercises as soon as possible after the operation. Feeling of pain, swelling, and heat in the leg, shortness of breath and pain in the chest or upper back, bleeding, or wound infection, if there is redness, swelling or discharge at the wound site, you should consult a doctor. Pain in the movement organs in the operated area, especially in the shoulder, arm, or swollen hand, there may be a little swelling in the arm or hand after the operation, but it should be resolved very soon after the surgery. If the swelling does not go away or if you have pain or tenderness in the arm, you should tell your doctor as soon as possible because there is a risk of long-term swelling in the hand and arm after lymph node removal. This swelling is caused by lymphatic fluid that cannot be stored and can occur any time after surgery.

## Conclusion

One of the ways to treat breast cancer is mastectomy surgery. In this method, all cancer cells are removed so that the breast tissue remains healthier and the disease does not spread to the other parts of the body. When the process of recovery and treatment will go very well, breast tissue can be examined accurately with the help of medical imaging.

## References

1. Gol M K, Dorosti A, Montazer M. (2019) Design and psychometrics cultural competence questionnaire for health promotion of Iranian nurses. *Journal of education and health promotion.*, 8. [Crossref], [Google Scholar], [Publisher]
2. Shahidi N, Mahdavi F, Gol M K. (2020). Comparison of emotional intelligence, body image, and quality of life between rhinoplasty candidates and control group. *Journal of Education and Health Promotion.*, 9: 153. [Crossref], [Google Scholar], [Publisher]
3. Mobaraki-Asl N, Ghavami Z, Gol MK. (2019). Development and validation of a cultural competence questionnaire for health promotion of Iranian midwives. *Journal of Education and Health Promotion.*, 8: 179. [Crossref], [Google Scholar], [Publisher]
4. Gol MK, Davoud A. (2020). Checklist for Determining Severity of Pain and Type and Dosage of Analgesics Administered to Women s Patient Undergoing Breast Surgeries. *International Journal of Women's Health and Reproduction Sciences.*; 8(2): 227-31. [Crossref], [Google Scholar], [Publisher]
5. Sadati L, Khanegah Z N, Shahri N S, Edalat F. (2022). Postoperative pain experienced by the candidates for gynecological surgery with lithotomy position, *Iranian Journal of Obstetrics, Gynecology and Infertility*, 24(12): 29-34. [Crossref], [Google Scholar], [Publisher]
6. Sadati L, Askarkhah A, Hannani S, Moazamfard M, Abedinzade M, Alinejad P M, Saraf N, Arabkhazaei A, (2020). Assessment of staff performance in cssd unit by 360-degree evaluation method, *Asia Pacific Journal of Health Management*, 15(4): 71-77. [Crossref], [Google Scholar], [Publisher]
7. Alipour A, et al., (2020). Preliminary Validation of the Corona Disease Anxiety Scale (CDAS) in the Iranian Sample. *J of health psychology.*, 8(4): 163-75. [Crossref], [Google Scholar], [Publisher]
8. Nurmeksela A. et al., (2020). Relationships between nursing

- management, nurses' job satisfaction, patient satisfaction, and medication errors at the unit Level: A correlational study. *Research Square.*, 1(1): 1-22. [Crossref], [Google Scholar], [Publisher]
9. Rezapour A, Qaderi N, Golalipour S. et al., (2022). Comparison of the Adhesion Rate of Implant Cemented Coatings with 3 Types of Glass Ionomer Cement, Zinc Phosphate and Resin on Blinds Made of Adhesive Composite after Thermal Stress, *Journal of Pharmaceutical Negative Results*, 3304-3316. [Crossref], [Google Scholar], [Publisher]
  10. Zeidani A, Qaderi N, Akbari Zavieh S, Golalipour S, Golmohammadi M. (2022). Cardiovascular outcomes and Dental care of COVID-19: a systematic review and met analysis, *Neuro Quantology*, 20(8): 3060-3066. [Crossref], [Google Scholar], [Publisher]
  11. Hosseini Khalili A R. et al. (2008). Angiotensin-converting enzyme genotype and late respiratory complications of mustard gas exposure. *BMC Pulm Med.*; 8(1): 15. [Crossref], [Google Scholar], [Publisher]
  12. Mahmoodiyeh B, Etemadi S, Kamali A, Rajabi S, Milanifard M. (2021). Evaluating the Effect of Different Types of Anesthesia on Intraoperative Blood Glucose Levels in Diabetics and Non-Diabetics Patients: A Systematic Review and Meta-Analysis, *Annals of the Romanian Society for Cell Biology*, 2559-2572. [Crossref], [Google Scholar], [Publisher]
  13. Shakiba B. et al., (2022). Medical Workplace Civility Watch: An Attempt to Improve the Medical Training Culture, *Journal of Iranian Medical Council*, 5(1): 227-228. [Crossref], [Google Scholar], [Publisher]
  14. Spinner C D, et al., (2020). Effect of remdesivir vs standard care on clinical status at 11 days in patients with moderate COVID-19: a randomized clinical trial. *Jama.*; 324(11): 1048-57. [Crossref], [Google Scholar], [Publisher]
  15. Ghaibi E, et al., (2022). Comparison of Marital Satisfaction, Emotional Divorce and Religious Commitment among Nurses and Staff of Ahvaz Government Hospitals, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, 1(1): 33-39. [Crossref], [Google Scholar], [Publisher]
  16. Ghaibi E, et al., (2022). Comparison of Organizational Citizenship Behavior and Job Creativity between Male and Men's Education Personnel 1 Ahwaz, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, 1(2): 49-57. [Crossref], [Google Scholar], [Publisher]
  17. Karimzadeh F, et al., (2021). Comparative evaluation of bacterial colonization on removable dental prostheses in patients with COVID-19: A clinical study, *The Journal of Prosthetic Dentistry*, 1-3. [Crossref], [Google Scholar], [Publisher]
  18. Mirakhori F, Moafi M, Milanifard M, Asadi rizi A, Tahernia H. (2022). Diagnosis and Treatment Methods in Alzheimer's Patients Based on Modern Techniques: The Orginal Article, *Journal of Pharmaceutical Negative Results*, 13 (1): 1889-1907. [Crossref], [Google Scholar], [Publisher]
  19. Najafi F, et al., (2018). The Relationship between General Health and Quality of Work Life of Nurses Working in Zahedan Teaching Hospitals. *Iranian J of Rehabilitation Research in Nursing.*, 4(2): 53-9. [Crossref], [Google Scholar], [Publisher]
  20. Zabihi F, Abbasi MA, Alimoradzadeh R. (2021). The Association of Serum Albumin Level with Cognition and Daily Function in Patients Undergoing

- Hemodialysis, *Annals of the Romanian Society for Cell Biology*, 2573–2579. [Crossref], [Google Scholar], [Publisher]
21. Alizadeh Otaghvar H, Moghaddam S, Molaei A. et al., (2021). Pharmacological and Medical Effect of Modified Skin Grafting Method in Patients with Chronic and Severe Neck Burns, *Journal of Medicinal and Chemical Sciences*, 369-375. [Crossref], [Google Scholar], [Publisher]
22. Ashayeri H, Mohseni R, Khazaie Z, Golalipour S, Bondarabadi Z A. (2022). Systematic Investigation of the Occurrence of Dental Problems, Cardiopulmonary Injuries and Duration of Hospitalization in ICU in Patients Affected by Covid-19 and Intubation in them, *Tobacco Regulatory Science (TRS)*, 2124-2146. [Crossref], [Google Scholar], [Publisher]
23. Daneste H, Sadeghzadeh A, Mokhtari M, Mohammadkhani H, Lavaee F, Moayedi J. (2022). Immunoexpression of p53 mutant-type in Iranian patients with primary and recurrence oral squamous cell carcinoma. *European Journal of Translational Myology*, [Crossref], [Google Scholar], [Publisher]
24. Jahandideh H, Yarahmadi A, Rajaieh S, Shirazi AO, Milanifard M, et al., (2020). Cone-beam computed tomography guidance in functional endoscopic sinus surgery: a retrospective cohort study, *J Pharm Res Int*, 31 (6): 1-7. [Crossref], [Google Scholar], [Publisher]
25. Kalantari H. et al., (2020). Determination of COVID-19 prevalence with regards to age range of patients referring to the hospitals located in western Tehran, Iran. *Gene reports.*; 21: 100910. [Crossref], [Google Scholar], [Publisher]
26. Mirfakhraee H, Golalipour S, Ensafi F, Ensafi A, Hajisadeghi S. (2022). Survival rate of Maxillary and Mandibular Implants used to Support Complete-arch Fixed Prosthesis & Investigation of internal and Neurological manifestations, *NeuroQuantology*, 20(6): 5118-5126. [Crossref], [Google Scholar], [Publisher]
27. Mirfakhraee H. et al., (2022). Survival rate of Maxillary and Mandibular Implants used to Support Complete-arch Fixed Prosthesis & Investigation of internal and Neurological manifestations, *NeuroQuantology*, 20(6): 5118-5126. [Crossref], [Google Scholar], [Publisher]
28. Mirjalili H, Amani H, Ismaili A, Fard MM, Abdolrazaghnejad A. (2022). Evaluation of Drug Therapy in Non-Communicable Diseases; a Review Study, *Journal of Medicinal and Chemical Sciences*, 5(2): 204-214. [Crossref], [Google Scholar], [Publisher]
29. Tahernia H, et al., (2022). Diagnosis and Treatment of MS in Patients Suffering from Various Degrees of the Disease with a Clinical Approach: *The Original Article, Journal of Pharmaceutical Negative Results*, 13 (1): 1908-1921. [Crossref], [Google Scholar], [Publisher]
30. Otaghvar HA, Rezapour-Nasrabad R, Ebrahimzadeh MA, Yaghoubi M, et al., (2022). The effects of Feijoa sellowiana fruit extract on wound healing in rats: a stereological and molecular study, *Journal of Wound Care*, 31 (Sup8), S36-S44. [Crossref], [Google Scholar], [Publisher]
31. Karampela I, Dalamaga M. (2020). Could Respiratory Fluoroquinolones, Levofloxacin and Moxifloxacin, prove to be Beneficial as an Adjunct Treatment in COVID-19? *Archives of medical research.*; 51(7): 741-2. [Crossref], [Google Scholar], [Publisher]

32. Abbasi M, Nakhostin A, Namdar F, Chiniforush N, Hasani Tabatabaei M. (2018). The Rate of Demineralization in the Teeth Prepared by Bur and Er: YAG Laser, *J Lasers Med Sci*, 9(2): 82-86. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
33. Aminzadeh M. et al., (2015). The Frequency of Medication Errors and Factors Influencing the Lack of Reporting Medication Errors in Nursing at Teaching Hospital of Qazvin University of Medical Sciences, 2012. *J of Health.*, 6 (2): 169-79. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
34. Barzideh M, Choobineh A, Tabatabaei S. (2012). Job stress dimensions and their relationship to general health status in nurses. *Occupational Medicine.*, 4 (3): 17-27. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
35. Milanifard M, Hassanzadeha G. (2018). Anthropometric study of nasal index in Hausa ethnic population of northwestern Nigeria, *J Contemp Med Sci.*, 4 (1): 26-29. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
36. Mileski M. et al., (2020). The impact of nurse practitioners on hospitalizations and discharges from long-term nursing facilities: a systematic review. *Healthcare.*, 8 (2): 114-34. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
37. Yavari M, Hassanpour S E, Otaghvar H A, Abdolrazaghi H A, Farhoud A R. (2019). The incidence of ossified superior transverse scapular ligament during nerve transfer through posterior shoulder approach, *Archives of Bone and Joint Surgery*, 7(3): 258. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
38. Abhari M B, Afshar P F, Alimoradzadeh R, Mirmiranpour H. (2019). Comparing the effect of including omega-3 to treatment regimen in elderly patients with ulcerative colitis with placebo: A randomized clinical trial, *Immuno pathologia Persa*, 6(1): e10-e10. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
39. Gadlage M J, et al., (2010). Murine hepatitis virus nonstructural protein 4 regulates virus-induced membrane modifications and replication complex function. *J Virol.*, 84(1): 280-90. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
40. Fard M M. (2021). Effects of Micronutrients in Improving Fatigue, Weakness and Irritability, *GMJ Med.*, 5 (1): 391-395. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
41. Alrabadi N. et al. (2021). Medication errors: a focus on nursing practice. *J of Pharmaceutical Health Services Research*; 12(1): 78-86. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
42. Asadi N, et al., (2020). Investigating the Relationship Between Corona Anxiety and Nursing Care Behaviors Working in Coronary Referral Hospitals. *IJPCP*; 26(3): 306-19. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
43. Shahkarami N, Nazari M, Milanifard M, Tavakolimoghdam R, Bahmani A, (۲۰۲۲). The assessment of iron deficiency biomarkers in both anemic and non-anemic dialysis patients: A systematic review and meta-analysis, *Eurasian Chemical Communications.*, 4 (6): 463-472. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
44. Zaimzadeh N. et al., (2018). Comparison of vitamin D dietary intake among four phenotypes of polycystic ovary syndrome and its association with serum androgenic components, *Razi Journal of Medical Sciences*, 25 (2): 87-96. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
45. Zaimzadeh N. et al., (2018). The study of dietary intake of micronutrients in four phenotypes of

- polycystic ovary syndrome separately based on Rotterdam criteria, *Razi Journal of Medical Sciences*, 25(3): 59-68. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
46. Alimoradzadeh R. et al., (2019). Effect of Memantine on Oxidative and Antioxidant Indexes Among Elderly Patients with Prediabetes and Mild Cognitive Impairment, *Journal of Neurology & Neurophysiology*, 10 (1): 1-5. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
47. Alimoradzadeh R. et al., (2022). Investigation of the Chemistry of Metformin by Targeting the Nrf2 Signaling Pathway (A response Surface Methodology Approach), *Chemical Methodologies*, 6(3): 166-173. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
48. Graham R L, et al., (2005). The nsp2 replicas' proteins of murine hepatitis virus and severe acute respiratory syndrome coronavirus are dispensable for viral replication. *J Virol.* 79(21): 13399-411. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
49. Kirchdoerfer R N. et al., (2019). Structure of the SARS-CoV nsp12 polymerase bound to nsp7 and nsp8 co-factors. *Nat Commun.* 10(1): 2342. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
50. Azizi Aram S, Basharpour S. (2020). The role of rumination, emotion regulation and responsiveness to stress in predicting of Corona anxiety (COVID-19) among nurses. *Quarterly J of Nursing Management*; 9(3): 8-18. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
51. Ghorbanizadeh S, Raziani Y, Amraei M, Heydarian M. (2021). Care and precautions in performing CT Scans in children, *Journal of Pharmaceutical Negative Results*, 12(1): 54. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
52. Golalipour S, et al., (2022). Examination of Dental Problems and Radiological and Cardiac Evaluations in Patients Affected by Covid-19, *Neuro Quantology*, 20 (8): 1519- 1527. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
53. Hariri S, Golalipour S, et al., (2022). Examining the Fracture Strength of Implant-based Fixed Partial Prosthesis with Different Dimensions of Connectors in the System CAM/CAD/Zir, *Tobacco Regulatory Science (TRS)*, 2310-2329. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
54. Mahmoodi S, et al., (2015). General health and related factors in employed nurses in Medical-Educational Centers in Rasht. *JHNM*; 25(1): 63-72. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
55. Musaei S. (2023). The Effect of Pregnancy on the Skin, *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, 2(1): 17-23. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
56. Salehi S.H, As'adi K, Mousavi S.J, Shoar S. (2015). Evaluation of Amniotic Membrane Effectiveness in Skin Graft Donor Site Dressing in Burn Patients, *Indian J Surg*, 77(Suppl 2): 427-31. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
57. Salehi S.H, Fatemih M.J, A'sadi K, Shoar S, Der Ghazarian A, Samimi R. (2014). Electrical injury in construction workers: a special focus on injury with electrical power, *Burns*, 40(2): 300-4. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
58. Ahmadi S E, Farzanehpour M, Fard A M M, Fard M M, Ghaleh H E G. (2022). Succinct review on biological and clinical aspects of Coronavirus disease 2019 (COVID-19), *Romanian Journal of Military Medicine*, 356-365. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]

59. Nazardani S Z, et al., (2023). A comprehensive evaluation of the Sports Physiotherapy curriculum. *Eurasian Journal of Chemical, Medicinal and Petroleum Research*, 2(1): 10-16. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
60. Abadi T S H, et al., (2020). Depression, stress and anxiety of nurses in COVID-19 pandemic in Nohe-Dey Hospital in Torbat-e-Heydariyeh city, Iran. *J of Military Med*; 22(6): 526-33. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
61. Raziani Y. et al., (2021). A common but unknown disease; A case series study, *Annals of Medicine and Surgery*, 69, 102739. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
62. Helmy Y A. et al., (2020). The COVID-19 pandemic: a comprehensive review of taxonomy, genetics, epidemiology, diagnosis, treatment, and control. *Journal of Clinical Medicine.*, 9(4): 1225. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
63. Rezaie M, Nouraddini Shahabadi A, Mohammadi S. (2022). 'Monte Carlo Investigation of Organs Activation in Proton and Heavy Ions Cancer Therapy by Spallation Process', *International Journal of Advanced Biological and Biomedical Research*, 10(2): 117-125. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
64. Salehi Sardoei A. (2022). 'Review on Iranian Medicinal Plants with anticancer Properties', *International Journal of Advanced Biological and Biomedical Research*, 10(1): 44-56. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
65. Bashiri Godarzi F, Shamaei S. (2022). 'Evaluation of anti-bacterial (Escherichia coli and Staphylococcus aureus) and anticancer effects of silver nanoparticles synthesized by Melissa officinalis L. extract on several cancer cells (A549, MCF-7, and HeLa)', *International Journal of Advanced Biological and Biomedical Research*, 10(1): 57-71. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
66. Momeni S, Geravandi F, khosravi A. (2021). 'Responsibility of effective factors in surgery in Iranian law with a look at the teachings of jurisprudence', *Journal of Law and Political Studies*, 1(1): 1-14. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
67. Gharayagh-Zandi D, Makouee S. (2022). 'COVID-19 and International Organizations: A Case Study of WHO', *International Journal of Advanced Studies in Humanities and Social Science*, 11(1): 11-20. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
68. Sayahi A, Shiralinejad F, Beit Sayah M. (2021). 'Evaluation of the Effectiveness of Anxiety and Stress Management on Reducing Anxiety and Stress of Conditioned Students', *International Journal of Advanced Studies in Humanities and Social Science*, 10(4): 221-229. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
69. Karimi M. (2021). 'Considering the Main Center for Treatment and Counseling of Cancer Patients', *International Journal of Advanced Studies in Humanities and Social Science*, 10(3): 146-150. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
70. Kashtl G J, Abed B A, Farhan L O, Salman I N, Dawood A S. (2023). 'A Comparative Study to Determine LDH Enzyme Levels in Serum Samples of Women with Breast Cancer and Women with Breast Cancer and Type 2 Diabetes Mellitus', *Journal of Medicinal and Chemical Sciences*, 6(4): 883-890. [[Crossref](#)], [[Google Scholar](#)], [[Publisher](#)]
71. Sahoo A P, Patnaik B C M, Satpathy I. (2023). 'Quality of Life (QoL) of Breast Cancer (BC) survivors of the rurban investor community in India', *Journal*

of Medicinal and Chemical Sciences,  
6(5): 946-961. [[Crossref](#)], [[Publisher](#)]

**How to cite this article:** Parmiss Adyani Kalvanagh, Yousef Adyani Kalvanagh\*. An Overview of Mastectomy and Its Types in Treatment of Breast Cancer. *International Journal of Advanced Biological and Biomedical Research*, 2023, 11(1), 25-34. Link: [http://www.ijabbr.com/article\\_703752.html](http://www.ijabbr.com/article_703752.html)

Copyright © 2023 by authors and SPC ([Sami Publishing Company](#)) + is an open access article distributed under the Creative Commons Attribution License(CC BY) license (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.