

# [Thesis: Timeline of Changes in Mammography Guidelines in the United States](#) <sup>[1]</sup>

By: Ziganshina, Dina Keywords: [Mammography guidelines](#) <sup>[2]</sup> [ACS guidelines](#) <sup>[3]</sup> [History of mammography guidelines](#) <sup>[4]</sup> [Cancer, Breast](#) <sup>[5]</sup>

Editor's note:

Dina Ziganshina defended her thesis titled "Timeline of Changes in Mammography Guidelines in the United States" in May 2018 in front of committee members Jane Maienschein, Carolina Abboud, and Alexis Abboud, earning her a Bachelor's degree from Barrett, the Honors College. <https://repository.asu.edu/items/48026> <sup>[6]</sup>

Abstract:

Breast cancer affects about 12% of women in the US. Arguably, it is one of the most advertised cancers. Mammography became a popular tool of breast cancer screening in the 1970s, and patient-gearred guidelines came from the American Cancer Society (ACS) and the US Preventative Task Force (USPSTF). This research focuses on ACS guidelines, as they were the earliest as well as the most changed guidelines. Mammography guidelines changed over time due to multiple factors. This research has tracked possible causes of those changes. Research began with an extensive literature search of clinical trials, the New York Times and the Washington Post archives, systematic reviews, ACS and USPSTF archives.

ACS was the first [organization](#) <sup>[7]</sup> to provide easily accessible patient geared mammography guidelines. The guidelines have changed six times since 1976. The first came after a large clinical trial, which screened 60,000 women and showed that mammography use decreased breast cancer deaths by 30%. During the 1980s and 1990s, anti-cancer lobbyists and health insurance companies were in conflict, as the former pushed for more frequent mammography screening while the latter pushed for less. The USPSTF published their first guidelines in 2002, separated women into different age groups, and suggested screening intervals, but also included a rating of evidence quality (A-I) that supported the screening recommendation. They changed in 2009 and 2016. The frequent changes had different, not all purely scientific and evidence-based causes. The political influence of anti-cancer activists, as well as media coverage, increased public interest in mammography, which in turn influenced changes in mammography guidelines, sometimes against scientific evidence.

Most changes moved towards more frequent screening for women older than 40, and less frequently for younger women, probably because multiple clinical trials had found that mammography was not useful for younger women with no history of breast cancer. There was also growing evidence of overdiagnosis and overtreatment risks from frequent mammography use. The patient-gearred mammography guidelines have changed due to multiple and not always well-grounded factors, such as public interpretations of mammography usefulness, social attention to mammography, and influence of different stakeholders at the time. Some changes have resulted solely from political and social factors, disregarding building scientific and clinical evidence against frequent mammography use.

Breast cancer affects about 12% of women in the US. Arguably, it is one of the most advertised cancers. Mammography became a popular tool of breast cancer screening in the 1970s, and patient-gearred guidelines came from the American Cancer Society (ACS) and the US Preventative Task Force (USPSTF). This research focuses on ACS guidelines, as they were the earliest as well as the most changed guidelines. Mammography guidelines changed over time due to multiple factors. This research has tracked possible causes of those changes. Research began with an extensive literature search of clinical trials, the New York Times and the Washington Post archives, systematic reviews, ACS and USPSTF archives.

## Subject

[Breast--Cancer--Diagnosis--Evaluation](#) <sup>[8]</sup> [Breast Cancer](#) <sup>[9]</sup> [Cancer of the Breast](#) <sup>[10]</sup> [Breast Cancer](#) <sup>[11]</sup> [Mammary Cancer](#) <sup>[12]</sup> [Tumors, Breast](#) <sup>[13]</sup> [Mammography](#) <sup>[14]</sup>

## Topic

[Technologies](#) <sup>[15]</sup> [Experiments](#) <sup>[16]</sup> [Publications](#) <sup>[17]</sup>

## Publisher

Arizona State University. School of Life Sciences. Center for Biology and Society. Embryo Project Encyclopedia.

## Rights

## Format

[Essays and Theses](#) <sup>[18]</sup>

## Last Modified

Tuesday, February 16, 2021 - 07:38

## DC Date Accessioned

Tuesday, February 16, 2021 - 07:33

## DC Date Available

Tuesday, February 16, 2021 - 07:33

## DC Date Created

2021-02-16

- [Contact Us](#)

© 2019 Arizona Board of Regents

- The Embryo Project at Arizona State University, 1711 South Rural Road, Tempe Arizona 85287, United States

---

**Source URL:** <https://embryo.asu.edu/pages/thesis-timeline-changes-mammography-guidelines-united-states>

## Links

- [1] <https://embryo.asu.edu/pages/thesis-timeline-changes-mammography-guidelines-united-states>
- [2] <https://embryo.asu.edu/keywords/mammography-guidelines>
- [3] <https://embryo.asu.edu/keywords/acs-guidelines>
- [4] <https://embryo.asu.edu/keywords/history-mammography-guidelines>
- [5] <https://embryo.asu.edu/keywords/cancer-breast>
- [6] <https://repository.asu.edu/items/48026>
- [7] <https://embryo.asu.edu/search?text=organization>
- [8] <https://embryo.asu.edu/library-congress-subject-headings/breast-cancer-diagnosis-evaluation>
- [9] <https://embryo.asu.edu/library-congress-subject-headings/breast-cancer-0>
- [10] <https://embryo.asu.edu/medical-subject-headings/cancer-breast>
- [11] <https://embryo.asu.edu/medical-subject-headings/breast-cancer>
- [12] <https://embryo.asu.edu/medical-subject-headings/mammary-cancer>
- [13] <https://embryo.asu.edu/medical-subject-headings/tumors-breast>
- [14] <https://embryo.asu.edu/medical-subject-headings/mammography>
- [15] <https://embryo.asu.edu/topics/technologies>
- [16] <https://embryo.asu.edu/topics/experiments>
- [17] <https://embryo.asu.edu/topics/publications>
- [18] <https://embryo.asu.edu/formats/essays-and-theses>