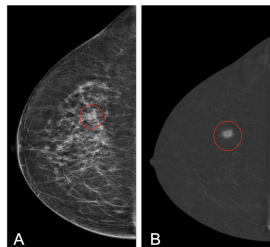


## Background

CEM, originally developed as a diagnostic adjunct to standard mammography, is now being evaluated as a screening modality. It may help overcome reduced sensitivity in dense breasts while providing a more accessible alternative to MRI.



**Figure 1.** Example of a CEM highlighting IDC (a) low energy image (b) recombined contrast enhanced image.

## Purpose

Summarize major ongoing prospective trials evaluating CEM for as a screening tool.

## Results

Trial	Population	Comparison	Key Findings
CMIST	Dense breasts, average/intermediate risk	CEM + DBT vs DBT	Results pending
TOCEM	Personal history of breast cancer	Annual CEM + DBT	↑ CDR (7.1/1,000 year 1; 3.8/1,000 years 2–3); higher recall (6.6% → 5%); 72% invasive (median 0.6 cm)
BRAID	Dense breasts, Age 50-70	CEM vs MRI vs ABUS	↑ detection vs ultrasound; smaller invasive tumors; slight ↑ recall/biopsy
SCEMAM	MRI-eligible patients	CEM + DBT vs DBT	↑ early-stage detection (ICDR 10/1,000); improved AUC (0.92 vs 0.73); ↑ false positives
C-MERIT	Dense breasts + biomarkers	Risk-adapted CEM	Results pending
DENSE-2	Dense breasts, age 49-72 years	CEM vs abbreviated MRI	Results pending (n=36,000)

Table 1. Key Characteristics of Ongoing Prospective Trials of Screening Contrast-Enhanced Mammography.

## Conclusion

CEM improves detection of small, invasive cancers in women with dense breasts, and elevated risk with modest increases in recall rates. Current data suggest it outperforms ultrasound, approaches abbreviated MRI, and demonstrates higher accuracy than DBT (AUC up to 0.92 vs 0.73). Ongoing prospective trials continue to define its role.

## Conclusion

CEM is a promising supplemental screening tool that may improve early detection in higher-risk women. Large-scale, prospective trials are poised to solidify its clinical role.