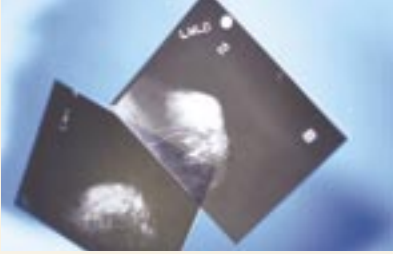


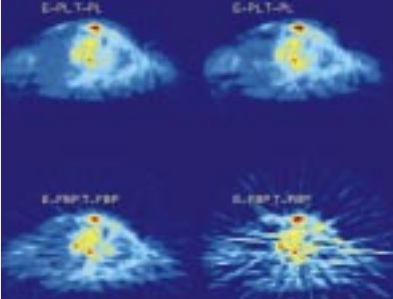


# STAY ABREAST OF CANCER DIAGNOSIS

*NRM scans screening methods from the tried and true to the brand new in breast cancer detection*

BY DR KEVIN WHITE

## How do the current and latest techniques stack up? Here's the prognosis

METHOD	PRO	CON	ACCESSIBILITY	COST
<p><b>MAMMOGRAMS</b> — the current gold standard for breast cancer screening</p> 	<ul style="list-style-type: none"> <li>Mammography is backed by a large body of scientific evidence.</li> <li>There are no absolute contraindications against this method.</li> <li>Studies show low cost:benefit ratios.</li> </ul>	<ul style="list-style-type: none"> <li>Sensitivity is low compared to other imaging modalities.</li> <li>Specificity is generally low, but this is true of virtually all current screening measures.</li> <li>Diagnostic accuracy is compromised in individuals with dense, glandular breasts.</li> <li>The procedure is more painful than other tests.</li> </ul>	<ul style="list-style-type: none"> <li>Mammograms are readily available across Canada and are performed in virtually all radiology departments.</li> </ul>	<ul style="list-style-type: none"> <li>In Ontario, the technical cost is \$37.70 for bilateral breast mammography.</li> <li>The professional cost for reading mammograms is \$21.50 per patient.</li> </ul>
<p><b>MAGNETIC RESONANCE IMAGING (MRI)</b> — sometimes used as an adjunct to mammography</p> 	<ul style="list-style-type: none"> <li>MRI appears to be more sensitive than mammography for detecting cancerous lesions, especially when they're small.</li> <li>It can be argued that it's better than mammography for distinguishing between cancerous and non-cancerous lesions.</li> <li>It's less painful than mammography. MRI is especially useful in patients at high risk (ie, those with a strong familial history). In fact, evidence suggests that MRI may be more cost-effective than mammography in high-risk women.</li> </ul>	<ul style="list-style-type: none"> <li>Specificity for breast cancers is relatively low, which may result in unnecessary biopsies.</li> <li>There are several absolute contraindications for MRI, including pacemakers and surgical clips.</li> <li>Claustrophobia prohibits many patients from submitting to MRI.</li> <li>There's relatively little research evidence supporting its use as a screening tool.</li> </ul>	<ul style="list-style-type: none"> <li>Many communities and hospitals don't have this technology.</li> <li>Waiting lists can be up to a year or more for elective MRI.</li> </ul>	<ul style="list-style-type: none"> <li>Costs are relatively high. In Ontario, the professional cost for reading MRI of the thorax is \$74.05 with \$37.05 added for additional views.</li> </ul>
<p><b>SELF-BREAST EXAMINATION (SBE)</b> — puts patient screening in their own hands, literally</p> 	<ul style="list-style-type: none"> <li>The primary advantage of SBE is that it allows for monthly evaluations at no financial cost.</li> <li>SBE programs increase patient awareness of breast cancer screening and risks.</li> <li>The combination of SBE and mammography has been shown to decrease mortality rates.</li> <li>SBE is convenient and painless.</li> </ul>	<ul style="list-style-type: none"> <li>Self-exam is the least sensitive and specific screen.</li> <li>It's of questionable benefit when not combined with mammography. On its own, it doesn't reduce breast cancer mortality.</li> <li>SBE is highly non-specific in patients with dense, glandular breasts.</li> </ul>	<ul style="list-style-type: none"> <li>Access is virtually universal since patients perform SBE on themselves.</li> <li>Anyone who can unhook a bra can perform SBE.</li> </ul>	<ul style="list-style-type: none"> <li>The only cost is in patient time and effort.</li> </ul>
<p><b>NUCLEAR SCREENING (SCINTIMAMMOGRAPHY AND POSITIVE EMISSION TOMOGRAPHY SCANNING)</b> — can be helpful when combined with other techniques</p> 	<ul style="list-style-type: none"> <li>Nuclear screening tests (NSTs) are relatively sensitive.</li> <li>They detect changes in regional blood flow and are potentially useful adjuncts to conventional methods that only detect anatomic changes.</li> <li>This type of screen may identify local and distant malignant spread, which could reduce the number of unnecessary mastectomies.</li> <li>NSTs may be particularly useful for screening high-risk individuals.</li> </ul>	<ul style="list-style-type: none"> <li>NSTs are relatively non-specific.</li> <li>The procedures are necessarily invasive — they require intravenous injections of radioactive tracer materials.</li> <li>There's less evidence supporting the use of NSTs for breast cancer screening than any of the previously listed methods.</li> </ul>	<ul style="list-style-type: none"> <li>Access to NSTs is more limited than SBE or mammography.</li> <li>Only larger hospitals have nuclear medicine departments.</li> <li>Waiting lists vary from weeks to months.</li> </ul>	<ul style="list-style-type: none"> <li>Direct costs of NSTs are greater than SBE or mammography.</li> <li>In Ontario, the professional cost for an NST reading is \$43.90.</li> <li>The Ministry of Health Schedule of Benefits does not list technical costs for either of these procedures but they should fall between \$150 to \$2000, depending on a variety of factors, including size of area being visualized, size of patient, etc.</li> </ul>