Mammograms -The Truth comes to the big screen

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One of the most frequently asked questions we receive from women is, 'What are your views on having regular screening mammograms and their risks?' Actually our current answer is clear – and it is very worrying. The truth is that, certainly where screening is concerned, ***"They are not wonderfully accurate, they have a deserved reputation for mis-diagnosis, at best they seem to be a complete waste of time and money and, at worst, may even increase a woman's breast cancer risks"***

Of course, if you ask the UK Government Health Authorities and leading Cancer Charities and they will tell you that early detection saves lives, and mammogram screening provides the best early detection. They may add that the risks are minimal but they are far more likely to buck the 'risk' question. The following article and the research it contains seriously questions this orthodox view.

At CANCERactive our view used to be that 'The jury is out'. Ever open-minded, several new research studies since December 2006 have caused us to refine our views. We are now increasingly against its use.

Of course, there has been little press coverage so your local mammography lady, your health worker or your doctor may know little of the recent research. Please feel free to pass this on to every woman you know.

Hot off the Press

The very latest research is possibly the most damning. According to a report published in the prestigious Journal of the American Medical Association's Archives of Internal Medicine (Arch Intern Med. 2008;168[21]:2302-2303), **breast cancer rates increased significantly in four Norwegian counties after women there began receiving mammograms every two years.** Is this a new finding? Actually, No: even the background to their research document states that the start of screening mammography programs throughout Europe has been associated with an increased incidence of breast cancer.

Now, **Be Clear**. We are not supporting a simplistic (stupid?) view punted by the cancer charities along the lines of 'Oh, this just shows the power of mammograms to find breast cancer at early stages' (as one said to me last week).

Why do I say this? The researchers themselves conclude that they cannot link the increased incidence of breast cancer simply to more cases being found because the rates among regularly screened women remained higher than rates among women of the same age who only received one or less mammograms in six years. The implication is worrying: **The more breast cancer screening you have, the more your incidence of breast cancer diagnosis increases.** We will explore this in more detail later.

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Mammograms - The technique

The female oncology nurse I talked to was only half joking.
'Mammograms were clearly invented by men! Ask any man if he would expose his private parts, put them between two cold metal plates, squeeze them, subject them to ionising radiation once a year on the vague chance that it might show he had a cancer, and he'd say I was mad. At best!'

The Gold Standard

Firstly, let's clarify the difference between **'screening'** and **'diagnostic'** mammography.
Screening mammography is performed on healthy women from the age of 40 to 70 (although there are moves to increase this) and is aimed at identifying anything suspicious, which might then justify further investigation. It is often incorrectly classed by many 'experts' under the heading of 'prevention' when in truth it is, at best, 'earlier detection' over the recommended practice of checking your breasts for lumps by hand.
Diagnostic mammography is used with existing patients or high-risk non-patients who already have existing justification for the test; for example, one or more high-risk factors, clinical symptoms, or a palpable lump. Let us be absolutely clear: In the latter case where symptoms already exist there can be little argument about mammography's role as the current 'gold standard' for evaluating and clarifying pre-existing suspicions.

Radiation risks

Dr. John Gofman, a Nobel Prize-winner, believed that up to half of all cancer was caused by unnecessary radiation primarily related to diagnostic x-rays. He may have been onto something.
Life turned for the mammogram first with a research report on a ten-year trial involving screening use on pre-menopausal women aged 40-50, reported in the Lancet (Dec 7th 2006) and funded by the Department of Health and Cancer Research UK ended with the comment that, **'The findings had to be balanced against possible negative considerations such as an increased radiation exposure which might increase risk later in life'**.
Frankly, it is very good of these two important bodies to 'come clean' and clarify once and for all that they believe there to be increased risks from mammogram radiation. For a number of years now, critics have claimed there were significant increased risks but repeated denial by Health Authorities and certain leading charities created a 'murky area'. Not so, any longer.

> **mammography uses radiation up to 5 times more harmfull than standard x-rays**

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According to the US Journal of Radiation Research, 'mammography involves a different type of radiation than that used in ordinary X-rays: A low energy form of ionising radiation. This can pass more readily through tissues but is up to five times more harmful than standard X-rays.' The same Journal says that the alpha particles of mammograms have both large mass and charge, quite unlike ordinary X-rays, which have neither. And here-in lays the first problem. That statement is completely inaccurate. And if the US Journal of Radiation Research can get it wrong what hope is there for us mere mortals?!

Mammograms are merely X-rays but they do have a cumulative build-up effect. According to The American College of Clinical Thermography: A Literature Review and Commentary on the Current Status of Mammography, the level of exposure when both breasts are photographed - about 1 rad - is recorded as almost 1000 times higher than one chest x-ray, and lucent, pre-menopausal breast tissue has been shown to be especially sensitive to radiation. Each rad of radiation exposure has been shown to increase breast cancer risk by a little over 1 per cent.

10 years of annual screening will therefore result in a 10 to 20 per cent increased breast cancer risk, and these risks obviously increase the younger the subject starts. In England, women might expect to double these figures as now all women have two views of each breast taken at every screen - one from above (craniocaudal) and one into the armpit diagonally across the breast (mediolateral).

The same US review notes that it has also now been proven that double strand breaks or even more extensive damage to the DNA can arise from the ionizations.

Worse still, 1 to 2 per cent of women are silent carriers of the ataxia-telangiectasia gene and this is highly sensitive to the carcinogenic effects of mammogram radiation. They have a fourfold higher risk of breast cancer from mammography; by some estimates this accounts for up to 20 percent of all breast cancers annually in the United States.

And finally, women who are carriers of a gene mutation (that's about 7 per cent of all women) may be well advised to be careful and go nowhere near a mammogram. In an article in the July 2006 issue of the Journal of Clinical researchers claimed the radiation dose from mammograms may actually cause breast cancer in women with a genetic predisposition for breast cancer. In the study which looked at 1,600 European women with known mutations in BRAC1 or BRAC2 genes (mutations that put women at a much higher risk for developing breast cancer), researchers said women in the study who had at least one chest X-ray were 54 percent more likely to develop breast cancer than those who never had one!

The 2006 study went on to say that these women might want to consider being screened with magnetic resonance imaging instead of X-rays.

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Screening – a waste of time and money or more harm than good?

In England, the budget for the breast screening programme is now estimated to be approximately £75 million. This works out at about £37.50 per woman invited or £45.50 per woman screened.

The World Health Organisation's International Agency for Research on Cancer (IARC) concluded in 2002 that 'mammography screening for breast cancer reduces mortality'. The IARC working group, comprising 24 experts from 11 countries, evaluated all the available evidence on breast screening and determined that there is a 35 per cent reduction in mortality from breast cancer among screened women aged 50 - 69 years old. For women aged 40-49 years, there is only limited evidence for a reduction. (NHS web site).

Yet again there are conflicting views on this – depending on the 'expert' you talk to. In both Denmark and Canada large population studies since 2005 have revealed that the death rates from breast cancer in women taking regular mammograms and women who have never had mammograms were exactly the same.

This 'No Benefit' conclusion is reinforced by ten-year trial quoted in the December 2006 Lancet which concluded that, where pre-menopausal women went for annual breast cancer screening, there was no significant reduction in breast cancer mortality – across the 160,000 women tested. Whilst researchers showed that 4 lives in 10,000 might, at best, be saved they concluded this had to be balanced against the 'increased negative factors'.

The American College of Clinical Thermography concluded in 2005 that 'a steady stream of experts have been publishing new evidence in peer-reviewed journals in the US relating to the risks inherent in using mammography for breast screening. These findings of increased damage are of no surprise to a growing number of doctors and specialists who have known for years that some of the cancers they have to treat are linked to the accumulative effects of mammographic radiation exposure'.

Some years ago, according to the ACCT, our own Professor Baum (Professor Emeritus of Surgery and visiting Professor of Medical Humanities at University College London), 'blasted American doctors as "immoral" for screening women under 50 for breast cancer'. Baum said the screening was "opportunistic" and "did more harm than good". ***"Over 99 percent of pre-menopausal women will have no benefit from screening. Even for women over 50, there has been only a one percent biopsy rate as a result of screening in the United Kingdom. The density of the breast in younger women make mammography a highly unreliable procedure''.***

Finding problems that aren't really problems at all

In September 2006 a report from the Nordic Cochrane Centre found that for every 2,000 women invited to have screening mammograms, just one would have their life prolonged, but 10 would endure unnecessary and potentially devastating treatment! Dr Peter Gozsche, who led the research, said that 'many women were being treated for slow-growing cancers that might never have developed to cause concern if they had not been picked up in the screening'.

The Nordic Cochrane Library is highly and internationally respected; the research took the seven best trials reported to date and reviewed the benefits against the negative outcomes resulting from the screening. It should be recorded very clearly here that the women who participated in screening had a 15 per cent lower risk from breast cancer that those who were not screened. Unfortunately such a 'benefit' might be due to other factors – those women coming for screening might be more concerned and careful about their health anyway – they might have better diets and so on.

The hard fact was that the absolute reduction in the risk of dying from breast cancer for those women participating in screening was 0.05 per cent. Whereas the risk for a women

> **The risk for screened women is ten times greater**

being screened and then actually treated unnecessarily for a slow-growing or even benign cancer was a staggering 30 per cent – giving an increased absolute risk of 0.5 per cent – **a risk ten times greater than the apparent benefit.**

Worse, apart from the 10 women in every 2,000 given unnecessary treatment, a further 200 will experience weeks or months of unnecessary worry solely because of 'false-positive' findings – the observation of 'cell changes' that eventually turn out to be benign. Problems that aren't really problems! This is the untold cost of the screening programme – the unnecessary stress, fear and damage to women caused by inaccurate screening.

For the record and our numerous overseas readers, The United States is the only country that routinely screens pre-menopausal women by mammography, although there has been a move in the UK in this direction too. The U.S. also extends its screening practice by taking two or more mammograms per breast annually in post-menopausal women. This contrasts with the European practice of a single view every two to three years.

Worse off having Screening?

The answer seems, increasingly, to be Yes!

In the 2008 *Archives of Internal Medicine* study, Per-Henrik Zahl, M.D., Ph.D., of the Norwegian Institute of Public Health, Oslo, and his research team studied breast cancer rates among 119,472 women (aged 50 to 64). These research subjects were asked to participate in three rounds of screening mammograms every two years between 1996 and 2001, as part of the Norwegian Breast Cancer Screening Program. The scientists then compared the number of breast cancers found in this group to the rate found amongst a control group of 109,784 women who were the same ages in 1992, and who would have been invited for breast screenings if the programme had been in place that year, their cancers being tracked using the national registry. Finally, after six years, all participants were invited to undergo a one-time screening to assess for the prevalence of breast cancer.

The researchers found that the incidence of invasive breast cancer was 22 percent higher in the group regularly screened with mammography. In fact, screened women were more likely to have breast cancer at every age.

Breast Tissue Dangers

Another factor often ignored in the debate is Breast Tissue Density. Put simply, 'dense breast tissue is risky tissue'. The US Magazine Life Extension amongst others has summarised a number of research studies on the causes. Factors that increase the density of breast tissue include dairy consumption, synthetic hormone use (like the contraceptive pill or HRT), and smoking. Factors that maintain soft breast tissue include adequate Tocotrienol vitamin E and omega-3 consumption, numbers of babies and length of time spent breast feeding (9 months per baby affords protection).

And here is the conundrum: Soft breast tissue is less risky tissue and ladies need to try to keep their tissue soft to reduce their risk of breast cancer. But soft breast tissue is significantly more at risk from mammogram radiation. Catch 22.

Overweight and obese women have problems too. The Archives of Internal Medicine (May 24, 2004; 164(10): 1140-7) reports that obese women are 20 per cent more likely to be wrongly diagnosed with false positive readings. Apparently in obese women, the thicker volume of breast tissue gives poorer image clarity when squeezed between the plates.

So, how accurate are mammograms?

Most women have read articles on false positive readings, women having weeks of hell before learning the truth, mis-diagnosis even resulting in biopsies and operations.
Dr van der Horst, a radiologist in the Netherlands screening programme presented his findings to a meeting of European screening experts at the 4th European Breast Cancer Conference in Hamburg in March 2004.

He was concerned that changing lifestyle patterns have resulted in more post-menopausal women having dense breast tissue. **'This makes it harder for mammograms to pick up tumours or early signs of breast cancer and may lead to unnecessary biopsies because of uncertainties in reading the results'.**

His research took a random sample of 2,000 from 54,000 women, who are screened every two years in Holland. The research classified the tissue as dense if more than a quarter of the tissue was dense. Otherwise it was classified as lucent.

The research found that 25 per cent of 50-69 year olds and 17 per cent of 65-69 year olds had dense breasts.

They then looked at cancer rates, comparing total cancers with those detected by the mammograms, i.e. the ability of the mammogram to actually correctly detect a cancer.
* In the lucent group it was 67 per cent.
* In the dense group it was 59 per cent.

> **at best, mammograms are accurate only two in three times.**

So according to the research presented at the top European Breast Cancer Conference, at best, mammograms are accurate only two in three times.

He also noted that research indicated ultrasound improved accuracy in cancer detection.

What are we actually measuring?

And here we come to yet another issue, on which scientists in the USA and the UK appear to have contrasting views.

At the American Breast Cancer Conference in California in the same year, a paper was presented by the top breast cancer Professor at UCLA. In this he said that 50 per cent of all positive readings from mammograms concerned problems in the lobes, and 50 per cent concerned problems in the ducts. But whilst lobular readings were indicative of breast cancer, not all ductal irregularities lead to breast cancer.

He stated to the audience of worldwide experts that ductal irregularities (DCIS) were almost always neither cancer nor pre-cancer but due to calciferous particles in the ducts.
(Editor's note: *Calcium deposits in the ducts might come about in a number of dietary ways – high cortisol levels, low magnesium (40 per cent of Americans were shown to be deficient in magnesium in 2005 research) and low vitamin D would prevent it being absorbed properly out of the blood stream and into the bones. Excess of dairy in Western Diets may well yield high blood calcium levels, but because it leads simultaneously to lowered magnesium and vitamin D levels, the calcium is not absorbed by the bones very efficiently. The truth is that high dairy consumption is likely to result in weaker bones!*
This might also explain the Harvard University view that adequate levels of omega-3 and vitamin D would significantly reduce breast cancers. (By removing calcium from breast tissue for example). Breast cancer is often pre-dated by inflammation – omega-3 can help reduce local hormone and inflammation response. Vitamin D receptor sites are prolific in breast cells and vitamin D levels are inversely proportional to cancer rates. Indeed, Professor Hollick of Harvard has gone on record as saying that there would be 25 per cent less deaths from breast cancer if women had adequate daily levels of vitamin D.)

Our Professor from UCLA went further – not only are 50 per cent of positive results ductal, non-cancerous calcium deposits …..only 20 per cent at most ever lead to breast cancer. His view was: 'Watch and wait'. We think magnesium, vitamin D, omega-3 supplements and less dairy might help too!

But this is all in stark contrast to the views of Christie Hospital, Manchester, where a team led by our own patron, Professor Tony Howell, according to their press release wants to test certain current cancer drugs as possible preventative agents for this 'highly dangerous form of breast cancer'. This 'confusion' is apparent in treatment regimes too. In Eire, I had three ladies in the audience diagnosed with ductal breast cancer, all of whom had been told to do nothing but wait. However one lady in my Watford audience had been rushed into radiotherapy!

The Nordic Cochrane Centre comes up with a third view. They say that ***'about a fifth of breast cancers detected during screening are early abnormalities known as Ductal Carcinoma in situ (DCIS). Most women with DCIS have mastectomies even though doctors do not know whether they will spread'.***

Confused?

As always, things aren't what they first seem. There has been a strong body of opinion in the orthodox medical fraternity only too keen to stress the importance of regular breast cancer screening, with large vans in Sainsbury's car parks and women feeling that 'they really ought to have one to be safe', when this now turns out to be quite a long way from the truth.

Back to Dr Gozsche, who added, ***'Information given to women when they are invited for screening, and that they can get on the internet, is considerably biased in that it underlines the benefits and usually completely omits major harms such as over-diagnosis'***.

Be very clear. Breast cancer 5-year survival rates in England at a little over 76 per cent are actually below the all-European average (Eurocare 4) and significantly below France and Germany and the best countries. According to these figures, ten more women in a hundred survive 5 years from diagnosis in Sweden than England; 5 more in France and Germany. How can we possibly improve our 5-year survival rates quickly?

The earlier we find out there is a problem, and the more problems we clear up (even if they turn out not to be cancer) the better our figures will look. So let's get more women to the screening centres for the sake of the statistics! You think I'm joking? Think again.

This is certainly the view of Dr John Bailer who spent 20 years on the staff of the U.S. National Cancer Institute and was editor of its journal. ***"The five-year survival statistics of the American Cancer Society are very misleading. They now count things that are not cancer, and, because we are able to diagnose at an earlier stage of the disease, patients falsely appear to live longer. . . . More women with mild or benign diseases are being included in statistics and reported as being 'cured'. When government officials point to survival figures and say they are winning the war against cancer they are using those survival rates improperly."*** Of course, the UK 75 million pound breast cancer screening programme would never be used in this way, would it?

Professor Michael Baum, originally one of the pioneers of the UK's screening programme, has now wavered and is calling on the National Institute for Health and Clinical Excellence (NICE) to investigate whether it should even continue. He has publicly stated that ***"if the (NCC) report stands up, the NHS screening programme should be referred to NICE to decide whether it should be closed down."***

UK and US Charities and cancer bodies regular comment that mortality from breast cancer is falling and 'in part this is due to better screening techniques' (to quote one of them). This is almost certainly rubbish. The almost manic push for a screening mammogram facing most women is further fuelled by the constant press panic on breast cancer: '42,000 cases per year in the UK, a 2 per cent annual growth rate, young pop stars now getting it. Where will it all end?' Hopefully, with some common sense. The recent US finding that breast cancer rates have suddenly fallen by 7 per cent in the year after millions of US women stopped taking HRT, is a start. Recognising that adding synthetic oestrogen to your body, being obese, smoking, having a high dairy intake, and a poor diet with inadequate levels of omega 3 and natural vitamins like D, C and tocotrienol E might be ways to self-destruction, would be a huge step in the right direction. Even Cancer Research UK have published figures showing that the contraceptive pill increases risk too, by 144 per cent if you take it in your forties, and 26 per cent if you ever take it. How many teenagers are warned about increased cancer risks when they are first offered the pill? If HRT were a herbal potion it would have

been banned by now, or at least dubbed the product of snake oil salesmen by Professors like Waxman of UCL.

But there is no doubt that the panic is also being fuelled by the results of the screening programme itself. One wonders just how many of the 42,000 cases are problems that are not really problems, but none-the-less fuel the growth figures?

Can some Breast Cancers actually heal themselves?

Let's go back to the 2008 Norwegian study. If having a screening mammogram every two years significantly increases your risks of being diagnosed across a six year period when compared to just one at the end of the six years, there can only be two conclusions:

1 Screening causes breast cancer diagnoses which are indeed breast cancer
2 Screening causes breast cancer diagnosis which isn't breast cancer
3 Breast cancers, or abnormalities that screening and orthodoxy would deem breast cancers, may appear during a 6 year period, but may also subsequently disappear without treatment

The Norwegian team found the last possibility the most interesting. "Because the cumulative incidence among controls never reached that of the screened group, it appears that some breast cancers detected by repeated mammographic screening would not persist to be detectable by a single mammogram at the end of six years," the researchers concluded in their report. ***"This raises the possibility that the natural course of some screen-detected invasive breast cancers is to spontaneously regress."***

The researchers also conclude that their findings ***"provide new insight on what is arguably the major harm associated with mammographic screening, namely, the detection and treatment of cancers that would otherwise regress."***

To my mind, politely, in jargon-speak, they are suggesting that **over-diagnosis and false positives are not the only concerns. The fact is that some breast cancers might never need treatment at all.**

This conclusion is HUGE. It adds to the criticism that Governments and cancer bodies are all too happy with mammogram screening because it will add numbers into the diagnosed column of the statistics, AND add numbers into the solved/treated/cured columns too, thus increasing the percentages of successful treatments. Whether you had it in the first place or not – or, now, whether you would have healed naturally, and without the drugs and damaging orthodox therapies.

Now, we are not for one moment advocating that, when diagnose with breast cancer, you ignore the orthodox treatment suggested. We see our role, always, as providing 'intelligence, without any vested

interests'. We only have one concern, you the patient, the diagnosed. We are not in the slightest influenced by Government Statistics or Drug company profits. You are all that matters.

Back to the comments in the Norwegian report: "Although many clinicians may be sceptical of the idea, the excess incidence associated with repeated mammography demands that spontaneous regression be considered carefully. Spontaneous regression of invasive breast cancer has been reported, with a recent literature review identifying 32 reported cases. This is a relatively small number given such a common disease. ***However, as some observers have pointed out, the fact that documented observations are rare does not mean that regression rarely occurs. It may instead reflect the fact that these cancers are rarely allowed to follow their natural course."***

In an editorial in the *Archives of Internal Medicine* that accompanies the breast cancer study, Robert M. Kaplan, Ph.D., of the University of California, Los Angeles, and Franz Porzsolt, M.D., Ph.D., of Clincal Economics University of Ulm, Germany, wrote that the most important concern raised by the study is "how surprisingly little we know about what happens to untreated patients with breast cancer".

We know from autopsy reports that a significant number of women die without knowing that they actually have breast cancer. And just because more diagnosed women are now surviving, actually provides no evidence that this is because of new, orthodox treatments, especially in a world where women are using more and more complementary and alternative natural therapies.

The real costs of screening

Let us remind ourselves of the key truths, recorded in the expert research above:

- Regular screening is associated with higher rates of diagnosis
- Whatever the tissue state, the results are, at best, only 67 per cent accurate in predicting the development of a real cancer
- As many as one in ten women may be the victims of false positive 'over-readings'
- As many as ten women may be treated unnecessarily for every one that is correct.
- Some women who do develop the disease may regress naturally.
- Some women will even have unnecessary full treatment programmes including mastectomy as a result
- There is no indication that people having screening mammograms have lower death rates from breast cancer than those who don't
- Mammogram radiation can be dangerous to soft/lucent breast tissue, to women with a genetic abnormality, the ataxia-telangiectasia gene, and to women with a mutated gene (e.g. BRCA1/2) resulting in the possible cause of some cancers
- It is possible that mammogram radiation, especially where a woman is regularly screened starting in pre-menopausal years, may heighten risks.
- There is no hard unequivocal evidence that regular screening will improve your chances of beating breast

cancer. There is even research that says it won't.
- There is no real knowledge of what happens in untreated patients, or on survival rates amongst those who employ natural therapies.

Non-invasive alternatives?

Meanwhile, as we have been saying an **icon** for six years, there is a sensible, realistic and non-invasive screening alternative: Thermography, or thermal imaging.

Recently this was offered to members of David Lloyd Fitness Centres until some orthodox authority insisted that there was no evidence that mammography could diagnose breast cancer as well as mammograms. And so the Centres were rapidly dropped.

Judging by the facts from the research above orthodoxy has a lot to fear from Thermography.

• It is non invasive, it does not damage tissue and it studies breast health, showing irregularities long before they might show up in a mammogram.

• New techniques are developing all the time – mostly from military usage. New sophistications are on their way.

• But the NHS are not about to chuck away all their screening mammogram machines whilst admitting they got it wrong all along.

• UK research has just confirmed that a mammography technician and a computer can now provide results as accurate as two technicians used to provide. (Ed: No comment!) And this will free up technicians to screen more people.

• Doctors have been trained to read and use mammograms. They know little about thermography so, at best, don't trust it and, at worst, feel useless. It is not on their list of 'Best Practice' so they can get into trouble if they send you for thermography rather than mammography, and something goes awry at a later date.

Thermography costs about 130 pounds a time and clearly shows if you have a hot spot. If a hot spot shows up, women can then go for a sensible, diagnostic mammogram.
Even Iridology and Kirlian photography at around 35 pounds can give you some very real indications of trouble and might even now give you better than 67 per cent accuracy. Who knows? They certainly can't damage your breasts.

What is clear is that the facts of mammograms and screening are not what the medical fraternity have been glibly telling the women of the UK for the last 20 years. And if women are

not truthfully informed about either the risks or the inaccuracy, it will be just one more factor in their increasing distrust of 'orthodox medicine' and the powers behind it in the UK. And we have recent research on that too!