Encouragingly, around 87 percent of women now survive for at least five years after their initial treatment for breast cancer. Improving quality of life for this group is the motivation behind the work of Associate Professor Sharon Kilbreath, of the University of Sydney’s Faculty of Health Sciences.

Associate Professor Kilbreath established the University’s Breast Cancer Research Group in 2001, following her own battle with breast cancer. The group’s primary goal is to identify and attempt to alleviate the painful, long-term musculoskeletal problems suffered by many survivors of the disease. These include ongoing shoulder and arm problems such as lymphoedema (swelling of the arm), shoulder stiffness, weakness, pain and numbness.

“This is an area in desperate need of research,” Associate Professor Kilbreath says. “So far everything we know about lymphoedema is unsubstantiated or anecdotal, lacking any evidence base. That’s what makes our research so significant.”

The group currently has more than 12 research projects underway. One of these, funded by the NSW Cancer Council and involving 160 women, aims to determine the effects of an intensive eight-week resistance training program starting just one month after breast cancer surgery.

“This was an innovative trial because patients were regularly cautioned against any vigorous over-use of their arm in the belief that they could potentially develop lymphoedema. This inactivity may then lead to loss of upper limb strength and range of motion.”

The study found no link between early resistance training and short-term onset of lymphoedema. In fact, in comparison to the control group (who received standard clinical care), slightly fewer women who exercised showed any signs of lymphoedema.
The team recently followed up the same group of women 12 months down the track to investigate whether this initial prognosis has been maintained, and was excited to find that there was low incidence of lymphoedema in both groups — with slightly fewer in the exercise group.

Pioneering research such as this recently saw Associate Professor Kilbreath awarded the inaugural National Breast Cancer Foundation (NBCF) Pink Circle Award, in recognition of exceeding $1 million in research funding from the Foundation.

NBCF CEO Sue Murray said, “It’s because of researchers like Sharon Kilbreath that I can proudly say that we are funding world-class research in Australia.” The Pink Circle Award comes on the back of Associate Professor Kilbreath’s 2009 NBCF Career Fellowship, which awarded her $1 million over five years to pursue her research into rehabilitation following breast cancer treatment.

The Breast Cancer Research Group is currently looking to recruit women who have undergone breast cancer treatment for a range of studies including investigations around lymphoedema and the effect of exercise on loss of bone density from aromatase inhibitors, a class of drugs used in the treatment of breast cancer. For more information, please visit sydney.edu.au/health_sciences/breast_cancer

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Images top: A/Prof Kilbreath (R) receiving Pink Circle Award from NBCF CEO Sue Murray.
Inset: Kilbreath with Ms Sue Carrick, NBCF Head of Research Strategy