

## **Obesity, inflammation and breast cancer – what's new**

### Brief Synopsis:

Obesity has been associated with increased risk of postmenopausal hormone receptor positive and premenopausal triple negative breast cancer and with poor breast cancer prognosis. Multiple biologic mechanisms contribute to these associations, including alterations in sex hormones, metabolic and growth factors (such as insulin, IGF-1 and glucose) and inflammation. Obesity has been associated with localized adipose tissue inflammation (including in the breast), and with alterations in systemic inflammatory markers. The mechanisms by which obesity impacts breast cancer will be discussed, with a focus on inflammation; clinical interventions under investigation that target obesity/inflammation (e.g. metformin, weight loss) will also be reviewed.