

Abdominal fat a key cancer driver for postmenopausal women

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Body fat distribution in the trunk is more important than body weight when it comes to cancer risk in postmenopausal women, according to a study presented at the ESMO 2017 Congress in Madrid.

The findings put a new spin on weight management priorities for women in this this age-group, who are prone to abdominal weight gain, said study investigator Line Mærsk Staunstrup, MSc, a PhD student with Nordic Bioscience and ProScion, in Herlev, Denmark.

"When assessing [cancer risk](#), body mass index (BMI) and fat percentage may not be adequate measures as they fail to assess the distribution of [fat mass](#)," she explained. "Avoiding central obesity may confer the best protection."

The findings come from the Prospective Epidemiologic Risk Factor study, an observational, prospective cohort study designed to get a better understanding of age-related diseases in Danish [postmenopausal women](#).

It included 5,855 women (mean age 71 years) who underwent baseline dual-energy X-ray absorptiometry (DXA) scans to assess body fat and body fat composition and have been followed for 12 years.

Using information from national [cancer](#) registries, the study recorded 811 solid cancers in the women and showed that the ratio of abdominal fat to peripheral fat was a significant independent predictor of cancer diagnosis up to 12 years after baseline (hazard ratio [HR] 1.30; 95%, CI:

1.11 to 1.52; p

Specifically, there were 293 breast and ovarian cancers, 345 lung and gastrointestinal (GI) cancers, and 173 other cancers. Looking in detail at specific cancers and risk factors the investigators determined that only lung and GI cancers were associated with high abdominal to peripheral fat ratios (HR: 1.68; 95%, CI: 1.12 to 2.53; p

Additional cancer risk factors were older age, receipt of hormone replacement therapy and smoking, but after controlling for these [risk factors](#), fat ratio remained an independent risk factor.

"The average elderly women can very much use this information, as it is known that the menopause transition initiates a shift in body fat towards the central trunk area. Therefore elderly women should be especially aware of their lifestyle when they approach the pre-menopause age," said Mærsk Staunstrup. "Clinicians can additionally use the information for a preventive conversation with [women](#) who are in higher risk of cancer. While clinicians have access to whole body DXA scanners at most hospitals, portable DXA scanners have become available on the commercial market and this may allow regional bone and fat scanning, however it may not be the most reliable for measuring central obesity," she concluded.

Commenting on the study, Andrea De Censi, MD from Galliera Hospital, in Genova, Italy said the study provides important confirmation of the role of obesity and particularly insulin resistance in the etiology of several cancers.

"While obesity has previously been linked to cancer risk, the link to lung cancer is new and intriguing," he commented.

"Increases in insulin, resulting from over-consumption of simple

carbohydrates such as potatoes, wheat, rice and corn, result in fat accumulation that is specifically visceral and abdominal," De Censi explained. Insulin also has detrimental effects on hormone production, and adipose cells in fat tissue increase chronic inflammation throughout the [body](#), another risk factor for several cancers.

"These data open the door for clinicians to initiate a number of interventions in obese patients. In addition to [fat loss](#) with diet and exercise, there may be a potential role for a diabetes drug, such as metformin, which can lower insulin effects and contribute to cancer prevention."

More information: Abstract 1408P_PR 'A study of body fat composition, derived from DXA-scans, in association with cancer incidence in postmenopausal women' will be presented by Ms. Staunstrup during Poster Display Session on Sunday, 10 September 2017

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