**Information Sheet 13: Dairy**

**Key Points**

- There is inconsistent evidence that dairy intake increases the risk of prostate cancer.
- Reducing dairy intake below the recommended daily intake, with the aim of reducing prostate cancer risk, is not advised because eating dairy products helps to maintain bone health and lower blood pressure.
- It is recommended to eat at least two or three servings of dairy per day. Choose low and reduced fat options where possible and high fat sources of dairy should be consumed conservatively.

**Introduction**
Eating dairy products and calcium is suggested to increase the risk of developing prostate cancer. However, this hypothesis is still controversial. Due to the limited and inconsistent evidence surrounding the effects of dairy intake and prostate cancer risk, reducing dairy intake with the aim of reducing prostate cancer risk is not advised. This is important because eating dairy products has certain health benefits including the promotion of bone health.

**Dairy Products**
It is recommended to eat at least two or three servings of dairy per day, depending on gender and age. Due to the high saturated fat content of certain dairy products, low or reduced fat options should be chosen when possible [1].

**Table 1: Amount equal to one serving of dairy**

<table>
<thead>
<tr>
<th>Type of dairy product [1]</th>
<th>One serving [1]</th>
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<tbody>
<tr>
<td>- Milk</td>
<td>1 glass (250ml)</td>
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<tr>
<td>- Cheese</td>
<td>2 slices (40g)</td>
</tr>
<tr>
<td>- Yoghurt</td>
<td>1 pottle (150ml)</td>
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**Health Benefits of Dairy Intake**
Dairy products are a rich source of nutrients including calcium, phosphorus, riboflavin, vitamin B12, protein, potassium, zinc, magnesium and vitamin A [2]. Health benefits associated with adequate dairy intake include:

- Reducing the risk of osteoporosis
- Reducing the risk of colon and breast cancer
- Lowering blood pressure [2]
Dairy Products and Prostate Cancer

It is unclear whether dairy intake increases the risk of prostate cancer. While some studies suggest that dairy intake may increase the risk of prostate cancer, the evidence is inconsistent [3, 4]. The potential role of dairy intake on prostate cancer risk is thought to involve the calcium and saturated fat found in dairy products [5].

Several of the proposed mechanisms are outlined below [5]:

- The calcium in dairy products may decrease the active form of Vitamin D, which has been shown to inhibit prostate cancer cell growth in the laboratory.
- High intake of saturated fat in dairy products may promote prostate cancer progression.
- High intake of dairy products, particularly milk, increases IGF-1 levels. IGF-1 is a hormone that promotes growth and may be involved in cancer development.

Summary of Research

In 2007, the World Cancer Research Fund-American Institute for Cancer Research expert panel concluded there is limited and inconsistent evidence that dairy intake increases the risk of prostate cancer [6]. This is supported by a meta-analysis of 45 studies in 2008 which found no association between dairy intake and the risk of developing prostate cancer [3].

The effects of post-diagnostic dairy intake on prostate cancer progression are less widely investigated. Two of the available studies suggest that high post-diagnostic consumption of whole milk may increase the risk of prostate cancer progression and death [5, 7].

In the Health Professional’s Follow-Up Study, men with the highest post-diagnostic milk intake had a 30% higher risk of prostate cancer progression compared to men with the lowest milk intake [7].

In a recent 2012 study by Pettersson et al. [5], post-diagnostic total milk and dairy intake was not associated with an increased risk of prostate cancer death. However, when whole milk intake was analysed separately, men with the highest versus lowest whole milk intake had a 50% increased risk of progression and a 2-fold increased risk of prostate cancer death. On the other hand, when low-fat milk intake was analysed, men with the highest versus lowest low-fat dairy intake had a 38% decreased risk of prostate cancer death [5]. These results should be interpreted with caution as they are preliminary and need to be investigated by further studies.
References


