

## Do Stewed Apples have the Same Benefit as Raw Apples ?

Last week's Health Tip, 'Two apples a Day---' raised a question from one of my readers regarding a comparison between raw apples and stewed apples. Firstly, we know the health benefits attributed to apples come from a rich assortment of polyphenols present in all apples, and secondly the concentration of polyphenols is highest in the skin/peel of the apple.

The question, "would stewed apples have the same benefit in reducing the risk of colorectal cancer as raw apples?". To which I would add another question, "would apple juice have the same benefit as apples?".

The short answer is; it depends on the level of polyphenols that are retained after processing which is mainly dependent on the parts of the apple that are removed in stewing or juicing.

### Stewed apples

Like most people we peel granny smith apples before cooking them at a temperature not much above the boiling point of water. Using this method the polyphenol content of stewed apples would be very low.

On the other hand if you grated the peel and included this with the rest of the apple the polyphenol content would be reasonably high.



As an experiment, I grated three large granny smith apples and included the peel with the rest of the apple and stewed them normally. The result was quite pleasing and to be recommended.

### Apple Juice

Some commercial apple juice producers remove the peel and seeds during juice production, thus removing the phenolic compounds, however there are other juice producers that only remove the core during processing, thus most of the polyphenols are retained in the juice. Look for apple juice that specifies 'whole apple'.

### Baked apples

Here the core of the apple is removed and replaced with say, sultanas. On the one hand the peel is intact with the polyphenols present, however the elevated temperature and cooking time usually has a degrading effect on active ingredients and I would expect the polyphenol content to be diminished.

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