

The value of fruit and vegetables / issued by Commonwealth Department of Health, from the Institute of Anatomy, Canberra, A.C.T.

Contributors

Australia. Department of Health
Australian Institute of Anatomy

Publication/Creation

Canberra : Commonwealth Department of Health, 1939.

Persistent URL

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NUTRITION
PAMPHLET
No. 3.

THE VALUE
OF FRUIT
AND
VEGETABLES.

ISSUED BY
COMMONWEALTH
DEPARTMENT OF HEALTH,
FROM THE
INSTITUTE OF ANATOMY,
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THE VALUE OF FRUIT AND VEGETABLES

The importance of fruit and vegetables in the diet is continually stressed by health authorities ; but have you ever taken stock of your own diet, or that of your family, to find out how much of these foods you eat each day ?

For the purpose of comparison here is a simple guide.

A good diet will include—

a generous helping of potato ;

two serves of other vegetables (one a green leafy one, such as spinach or cabbage or silver beet) ;

and two pieces of fruit (at least one raw)—

If larger amounts can be managed so much the better.

WHY ARE FRUIT AND VEGETABLES IMPORTANT ?

For good health the diet must be adequate in energy foods, body-building foods, and “ protective foods ”, foods supplying vitamins and mineral salts.

Fruit and vegetables are among the richest sources of vitamins and mineral salts. They are two of the most important “ protective foods ”.

In addition, fruits and vegetables provide “ roughage ” or fibre, necessary for promoting the movements of the digestive tract and for the prevention of constipation.

ARE ALL FRUITS AND VEGETABLES OF EQUAL VALUE?

We cannot rely on any one food to supply all the requirements of our bodies. One food may supply an abundance of three or four essentials, yet be completely lacking in others. So to meet all our needs we live on a "mixed diet"; a diet containing a variety of foods.

Likewise with fruits and vegetables, one kind may be a good source of Vitamin C and another of Vitamin A. Both are valuable for different purposes.

The tables on the following pages show the vitamins and minerals that are contained in vegetables and fruits commonly used in different parts of Australia.

Four plus signs (+++++) indicate that the food is an excellent source of that particular vitamin; three (++++) a very good source; two (++) a good source; and one (+) a source.

It will be seen that some vegetables are relatively much richer in vitamins and minerals than are others, and therefore are of more value in the diet.

DOES COOKING DESTROY THE VITAMINS?

Of the three main vitamins, A, B, and C, found in fruits and vegetables, C is the most affected by heat. If, however, the time of cooking is reduced to a minimum and, provided "soda" is not used in the water, a considerable amount will be retained. "Soda" destroys Vitamins B and C.

Since both these vitamins dissolve in water, less will be lost from the vegetables if they are cooked with as little water as possible or by methods using no water.

COOKING WATER FROM VEGETABLES IS VALUABLE.

Many of the mineral salts contained in vegetables dissolve in water. Cooking water will then contain mineral salts and Vitamins B and some C, and consequently should not be wasted. It can be used to advantage in soups and sauces.

THE BEST WAYS OF COOKING VEGETABLES.

The practice of cooking potatoes in their jackets is a good one, for it helps to prevent loss of vitamins in baking, steaming, and boiling. Whether or not the potato is served in its jacket is a matter of personal taste. The peel itself has some value and may be eaten except in cases where it is found difficult to digest.

To retain the maximum amount of good, steaming or the use of a waterless cooker are ideal methods for cooking all root vegetables.

Green vegetables are best cooked in the quickest possible way, generally in boiling water. By such a method a considerable amount of Vitamin C is retained. To preserve the greatest amount of Vitamin C the lid of the saucepan should be kept on ; but if difficulty is found in keeping the colour of the vegetable, then it is better to remove the lid, for the appearance of vegetables is also of importance.

In cooking spinach and silver beet extremely little water is necessary if the lid of the saucepan is left on. Cooking should be continued only till the leaf is tender, not till it becomes mushy. Overcooked vegetables are flavourless and unattractive and, besides, the nutritive value is reduced.

THE VALUE OF HOME-GROWN FRUIT AND VEGETABLES.

During the time that elapses between the picking of fruit and vegetables and the eating of them, there is a gradual decrease in the vitamin content.

Vegetables and fruit that have to be transported long distances have frequently to be picked before they are properly ripe, and research has shown that in most cases the vitamin content has not then reached its full value.

Both these problems can be overcome if vegetables and fruit are home grown. Then they are not picked till ripe and can be eaten straight away.

In districts where water is restricted, mustard and cress may be grown on moistened cottonwool or blotting-paper. Both these vegetables may be eaten raw and are very rich in vitamins, as will be seen from the table on page 5.

FRUITS

MINERALS

VITAMINS

	Calcium.	Phosphate.	Iron.	A.	B.	C.
Apples	++	++
Apricots—fresh	+	++++	+	+
„ dried .. +	+	+	+++	++++	+	++
„ canned	+	++++	+	+++?
Bananas	+	+	++	+++?
Blackberries	+	+	..	+
Blackcurrants .. +	+	+	..	++++
Cantaloupes	++	+	++
Cherries	+	++	+	+
Dates +	++	+	+	..
Figs—fresh .. ++	+	+
„ dried .. ++	+	+	+	..	+	..
Grapes	+	..	+	+
Grapefruit	++	+++
Lemons +	+	..	+	+++
Mangoes (ripe)	+++	+	+++
Nectarines	+++	..	++
Oranges .. ++	+	+	++	+++
Pawpaw	+++	..	++++
Peaches—						
white	++
yellow	++	..	++
„ dried .. +	+	+	++	++	..	++
„ canned	++	..	+++?
Pears—fresh	+	+
„ canned	+	+
Pineapple	+	..	+	+	+++
„ canned	+	..	+	+	++++?
Plums	+	+	++	+
Prunes—dried .. +	++	+++	++	+
Raisins—dried	++	..	+	..
Raspberries .. ++	+	+	+	+	..	+
Strawberries .. +	+	+	+	+++
Rhubarb .. +	+	++

VEGETABLES MINERALS

VITAMINS

	Calcium.	Phosphate.	Iron.	A.	B.	C.
Artichoke (globe) ..	+	++	+	+	++	++
Asparagus ..	+	..	++	+	++	++
Beans—haricot ..	++	++	+++	..	++	..
.. Lima ..	+++	++++	+++++	++	++	..
.. French, or string ..	++	+	++	++	+	++
Beet root ..	+	..	+	..	++	+
.. greens ..	+++	..	+++	+++	+	+++
Brussel sprouts ..	+	++	++	++	++	+++
Cabbage ..	++	++	+	++
Carrots ..	++	+	+	++++	++	++
Cauliflower ..	+++	+	+	..	+	++
Celery ..	++	..	+	+	+	+
Cress (garden)	+++	++	+++
Cucumber	+	++
Green peppers	++	..	++++
Leeks ..	++	+	+	..	+	++
Lentils (dry) ..	+	++	+++	..	++	..
Lettuce ..	+	..	+	+++	++	+
Mushrooms	++	+	..	++	..
Mustard greens	+++	+	++++
Onions ..	+	+	+	..	++	++
Parsnips ..	++	+	+	+	++	++
Peas—green ..	+	++	+++	++	++	++
.. , dried ..	+	++	++	+	+	+
Potatoes	+	+	..	+	++
Pumpkin ..	+	+	+	+	+	+
Radish ..	+	..	+	..	+	++
Spinach ..	++	+	+++	++++	++	+++
Swede turnip ..	++	+	+	..	++	++
Tomatoes	+++	+	++
Turnip—root ..	++	+	+	..	+	++
.. greens ..	+++	+	+++	++++	+	+++
Watercress ..	+++	+	+++	+++	++	++++

USE OF DRIED VEGETABLES AND FRUITS.

Dried peas, lentils, and beans, such as haricot, broad, lima and soya beans, are valuable sources of Vitamin B, and as well provide protein (the body-building foodstuff), and mineral salts.

Their Vitamin C content can be increased by allowing them to germinate on a layer of moist earth or cottonwool.

Dried fruits retain their full mineral content, and though the Vitamin C is very considerably reduced, they are still of some value as a source of vitamins. Particularly in inland areas and in times of drought, dried fruits and vegetables are of great value in the diet.

TINNED OR BOTTLED FRUITS AND VEGETABLES.

The process of canning generally slightly reduces the vitamin content of the fruit or vegetable, although some techniques are claimed to preserve the full quantity.

In any case, such fruits and vegetables are very valuable and, where it is possible, bottling of home-grown products for use during seasons of scarcity is advocated.

BUT BEST OF ALL—RAW FRUITS AND VEGETABLES.

Not all vegetables are palatable or digestible without being cooked, but, of those that are, the raw form is the best form of all.

No vitamins or minerals are lost and natural colour and flavour are unaltered. Fruits and vegetables which are crisp and firm retain these qualities and those that are juicy lose none of their content.

What can be more appetising than an attractively prepared salad of raw vegetables or fruits, or a mixture of both.

Arrange in fresh lettuce leaves—slices of tomato and apple (sprinkled with lemon juice), shredded crisp young carrot and short lengths of firm white celery; garnish with a small tapering radish and serve with a good mayonnaise or dressing.

Artistically arranged, such a salad will easily entice the most capricious appetite, and think how abundant it is in vitamins and mineral salts!

RAW FRUITS AND VEGETABLES FOR THE TEETH.

It is now realized that one of the factors in starting tooth decay is the adherence of tiny particles of sugary and starchy foods to the teeth, particularly in crevices and between the teeth. To remove this harmful sticky coating conclude each meal with a piece of crisp fruit or vegetable, such as raw apple, lettuce or celery. The chewing of these crisp foods, which contain desirable organic acids, causes a flow of saliva, which washes the surface of the teeth and helps to free it from food particles. We all know how clean and fresh the mouth feels after eating a good firm apple.

Try finishing each meal in this fashion and see if you can reduce your amount of tooth decay.

In particular, develop this habit in children, even in the toddler stage. Just a small portion of apple or a little leaf of lettuce is sufficient and it must be eaten at the very end of the meal, after the drink of milk.

FOR THE CHILD WHO DISLIKES VEGETABLES.

Many children who cannot be easily persuaded to eat cooked vegetables, very readily take to raw ones, lettuce, carrot, tomato, young cabbage, &c. They must be chewed thoroughly. One of the advantages of raw vegetables is that they provide more exercise for the teeth and jaws and so aid in their correct development.

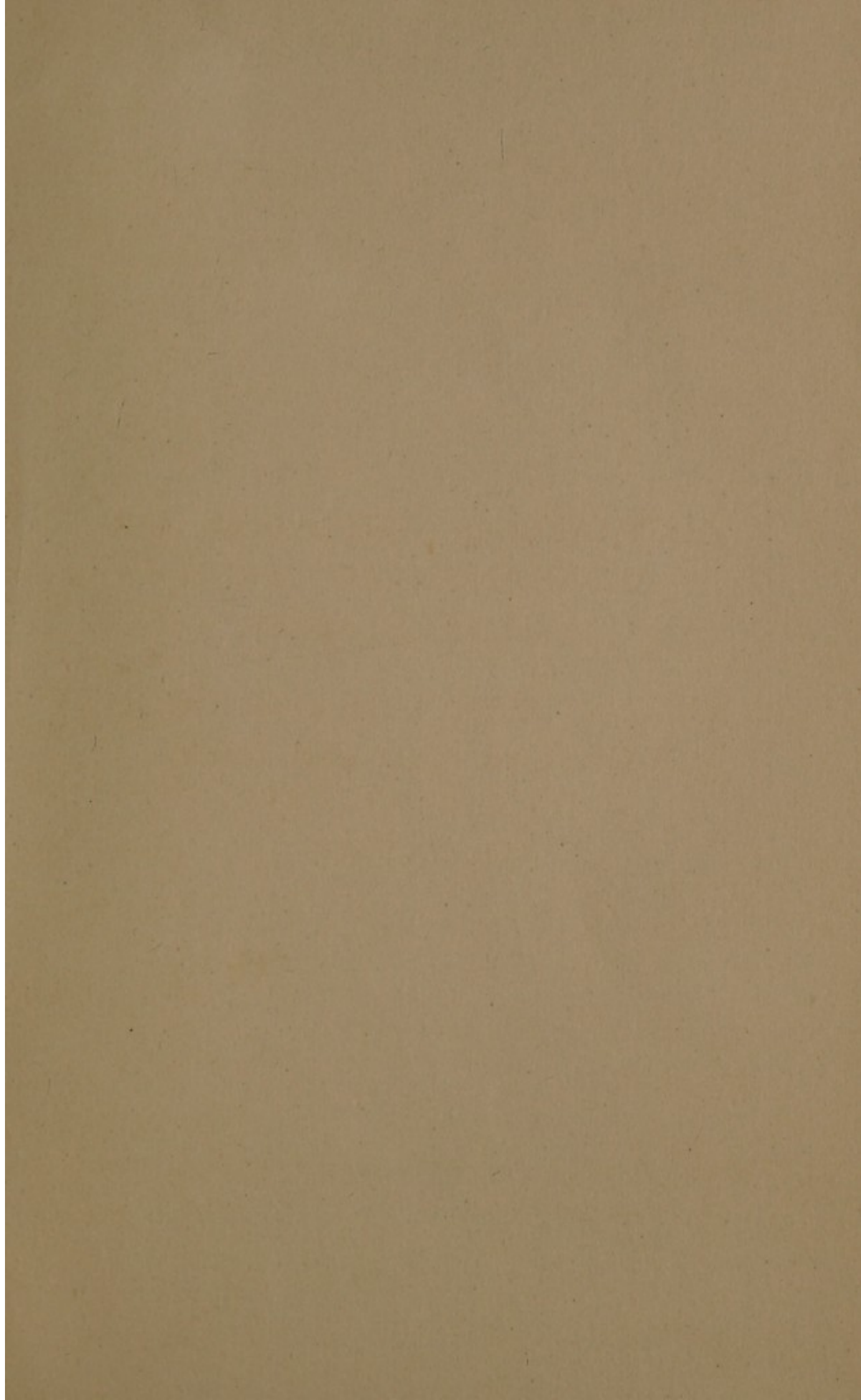
Frequently the reason children develop a dislike for cooked vegetables is that the cooking or preparation has been badly done. For example, cabbage has been overcooked ; all the sand has not been washed out of spinach ; or beans have been improperly strung.

So it is important, when introducing new vegetables into the diet, that they be carefully prepared and nicely cooked.

Since vegetables and fruit should play such a big part in the diet throughout life, it is well worth taking the trouble to make them attractive to the child and to encourage in him a desire for them, which will become a lifelong habit.

AUSTRALIA IS NOTED FOR HER
ABUNDANCE OF FRUIT
AND VEGETABLES.

LET US APPRECIATE OUR GOOD
FORTUNE AND USE THEM
TO THE FULLEST
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