

CURIOSITY  
NUTRITION  
BALANCE  
LONGEVITY  
A MORE  
HUMAN FUTURE

EUROPE

ANATOLIA



CHINA

KOREA

JAPAN

FOOD  
SCIENCE  
NATURE  
PEOPLE  
A BRIGHTER  
TOMORROW

**AXIA**  
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# THE PEAR

THE FULL RESEARCH SERIES

NATURE'S COLOURS. NATURE'S BALANCE.

HERITAGE  
INFORMS  
A BRIGHTER  
TOMORROW

A  
Healthier  
World  
Grows  
Naturally



ORIGINS • DIVERSITY • PHYTONUTRIENTS • HYDRATION

*From ancient origins to modern nutrition, this four-part series explores the pear through history, variety, phytochemistry and hydration.*

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## PART 1

NATURAL HYDRATION RESEARCH SERIES

# THE PEAR THROUGH TIME

*Origins • Domestication • Varieties • Ripening*

*The pear's journey from wild Eurasian fruit to cultivated European and Asian varieties.*



### ANCIENT ROOTS

Wild *Pyrus* species grew across Eurasia. Pears were cultivated in the ancient Mediterranean world and across East Asia, then carried through trade, migration and orchard culture.



### TWO DOMESTICATION TRADITIONS

European pears, largely *Pyrus communis*, and Asian pears, especially *Pyrus pyrifolia*, developed through distinct but connected histories of selection.



### CONFERENCE - THE EUROPEAN FORM

Long-necked, green and russeted. It is firm when picked, then becomes softer, aromatic and potentially buttery as it reaches eating ripeness.



### NASHI - THE ASIAN FORM

Round, golden and crisp. Its firm cellular structure gives it a clean bite and allows it to retain more crunch when ripe.



### RED ANJOU - COLOUR AND FORM

Broad and traditionally pear-shaped, with anthocyanin pigments producing its burgundy-red skin while the flesh remains pale.



### THE MOMENT OF RIPENING

Pears are climacteric fruit. As ripening begins, ethylene signalling and respiration rise, aroma develops and European pear flesh softens.

“ From wild fruit to cultivated form - every pear carries a history. ”

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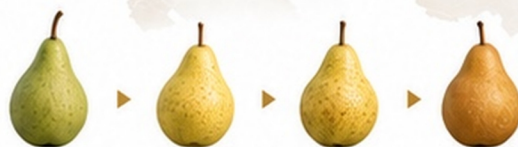
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RIPENING

Increasing ethylene,  
softening and aroma



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BRAIN HEALTH



WELLBEING



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## PART 2

## NATURAL HYDRATION RESEARCH SERIES

THE PEAR  
*Beneath the Skin*

Fibre • Polyphenols • Pigments • Micronutrients

*The nutritional and phytochemical structure of the pear - from its protective skin to its pale, water-rich flesh.*

## WHERE THE FIBRE LIVES

Pear fibre is distributed throughout the fruit, although the skin contributes to the total. Eating a pear with its skin generally retains more fibre than peeling it.



## POLYPHENOLS IN THE PEEL

Pear skin can contain a higher concentration of phenolic compounds than the flesh. Their levels vary between cultivars and stages of ripeness.



## RED ANJOU - COLOUR AT THE SURFACE

Its burgundy-red skin comes from anthocyanin pigments concentrated mainly in the outer layers. Beneath the coloured skin, the flesh remains pale.



## VITAMINS AND MINERALS

Pears provide vitamin C, potassium and small amounts of other micronutrients. Their nutritional contribution is best understood as water, carbohydrate, fibre and plant compounds.



## SKIN VERSUS FLESH

The flesh contains most of the pear's water and natural carbohydrates. The skin adds texture and contributes fibre and polyphenols.

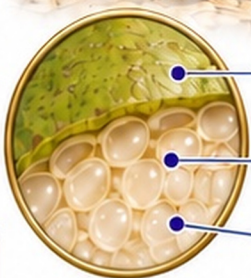


## WHAT PEELING CHANGES

Removing the skin reduces some fibre and peel-associated polyphenols. The remaining flesh still provides water, carbohydrate and nutrients.

“ Much of the pear is pale and quiet. Its complexity begins at the surface. ”

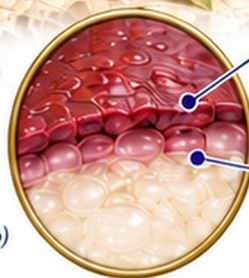
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Skin (epidermis)

Fibre-rich  
cell walls

Flesh (mesocarp)

Anthocyanin-  
rich skin

Hypodermis



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## PART 3

NATURAL HYDRATION RESEARCH SERIES

## THE PEAR &amp; HYDRATION

*Water • Carbohydrates • Digestion • Recovery**A water-rich fruit that can contribute to everyday hydration while also providing natural carbohydrate, fibre and plant nutrients.***A FRUIT BUILT AROUND WATER**

A fresh pear is approximately 84% water by weight. Its fluid is held within the fruit's cellular structure and released as the pear is chewed and digested.

**HYDRATION THROUGH FOOD**

Drinks provide most daily fluid, but water-rich foods also contribute. Pears can form part of this wider hydration picture alongside meals and other fruits.

**NATURAL CARBOHYDRATES**

Pears provide naturally occurring sugars, principally fructose, glucose and sucrose. These carbohydrates supply energy within a whole-fruit structure.

**FIBRE AND DIGESTION**

Pear fibre adds bulk and supports normal bowel function. Pears also contain sorbitol, which may encourage bowel movement but can affect sensitive individuals.

**POTASSIUM - PRESENT, NOT CONCENTRATED**

Pears provide some potassium, but they are not a concentrated electrolyte source or a replacement for an oral rehydration or sports drink.

**HYDRATION AND RECOVERY**

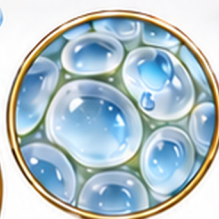
After light activity, a pear can contribute water and carbohydrate. After heavy sweating, additional fluid, sodium and appropriate nutrition may be required.

**THE REALISTIC ROLE**

A pear supports hydration; it does not hydrate the body alone. Its value comes from water, carbohydrate, fibre and micronutrients within a whole fruit.

“Hydration does not begin and end with the glass. It also lives within the foods we eat.”

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Light activity

Heavy sweating:  
add fluid + sodium



HYDRATION



NUTRITION



BRAIN HEALTH



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