

SANACEL® SANACEL® oat SANACEL® add
SANACEL® wheat SANACEL® AF QUALICEL®



Passionate about fibres

CFF-CELLULOSEFIBRES from THURINGIA multifunctional and healthy

HEALTHY ASPECTS

www.cff.de



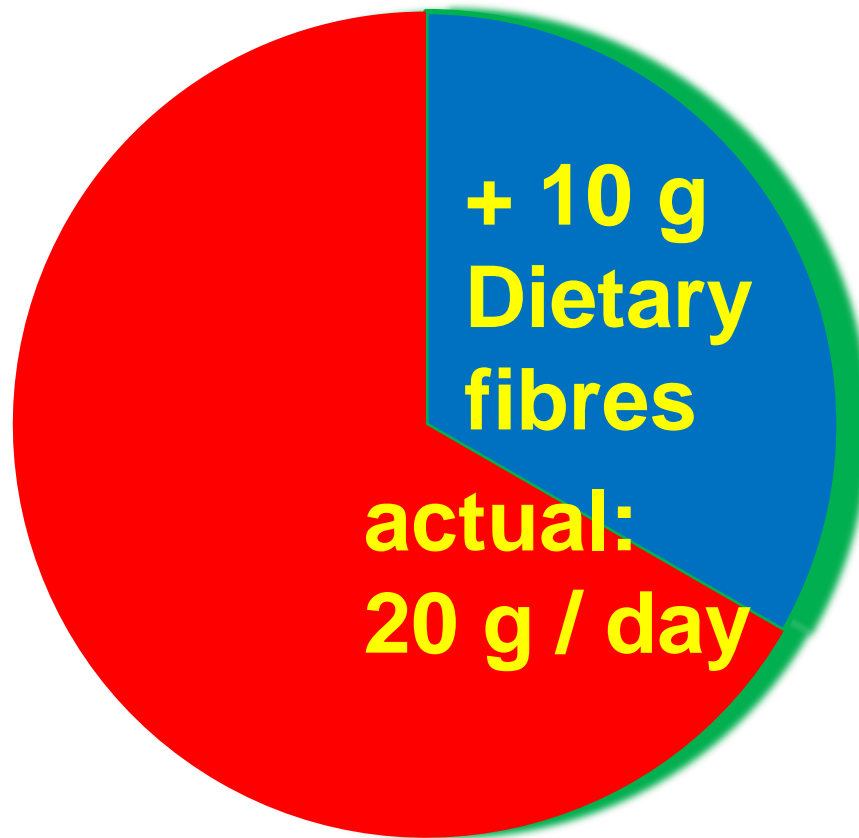
Extent of Nutritional Related Diseases

In Germany it is estimated that around 10 Mio. people suffer nutritional related diseases.

Disease	Concerned persons	Nutritional physiological effects of dietary fibres
		Dietary fibres
High blood pressure	6 – 12 million people	<ul style="list-style-type: none"> • control overweight by reduction of energy intake and energy density of food stuff • relieves the metabolism in cardiovascular diseases • Delay the rise in blood sugar in diabetics • lower the cholesterol salary by connection and excretion of cholesterol and bilious acid • Water connection in the colon, thereby removal of functional disturbances of the intestinal activity • Have a high saturation effect
Diabetes	2 – 3 million people	
Over weight	18 – 30 million people	
Fat metabolic disorder	6 – 12 million people	
goitre	7 - 8 million people	
Gall stones	6 million people	
gout	3 – 5 million people	
Constipation	18 million people	

We don't eat enough dietary fibres!

Intake of dietary fibres



- outstanding quantity of dietary fibres
- actual



Definition dietary fibres

Dietary Fibers are mostly indigestible non-starch polysaccharides made out of plants

Dietary fibres are substances that can not be broken into resorbable parts by the enzyme system of the human body.

Some of them are partly or completely digestible by the microorganisms in the gut.

Comparison soluble and insoluble fibres

Insoluble fibres

- low water solution
- very good water binding capacity
- high oil absorption
- to the insoluble fibres belong cellulose , hemicellulose and lignin
- mostly be included in cereals and legumes
- no fermentation in the colon , therefore no resorption
- because of high water binding capacity binding of toxins and gall salts
- Improvement of digestion

Soluble fibres

- high water solution (thickening agent)
- to the soluble fibres belong hemicellulose, inulin, pectin, locust bean gum and guar gum
- mostly be included in fruits and vegetables
- fermentation by microorganismen and conversion in short chained fat acids

Recources of fibres

<u>Vegetables, roots and fruits</u>	<u>cereals</u>	<u>wood</u>
<ul style="list-style-type: none">• apples• oranges• Citrus fruits• Sugar beets• chicory	<ul style="list-style-type: none">• wheat• oat• rice• starch	<ul style="list-style-type: none">• powdered cellulose• microcristaline cellulose

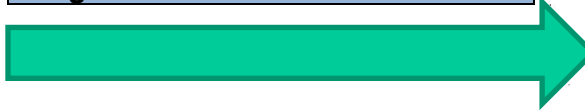
Fibre content of fibres

Content of dietary fibres	product
Fibre free	Animal foods sugar starch
Poor in fibre	cucumbers, leafy vegetables, kohlrabi apples, pears, oranges, soft fruits, fruit juices white bread
High fibre	Fresh and dried legumes mixed-grain bread Whole meal bread
Fibre concentrate	wheat bran, oat bran, apple fibre SANACEL® wheat, (wheat fibre) SANACEL® oat, (oat fibre) SANACEL® (powdered cellulose) SANACEL® add (blends SANACEL® bamboo (bamboo fibre)

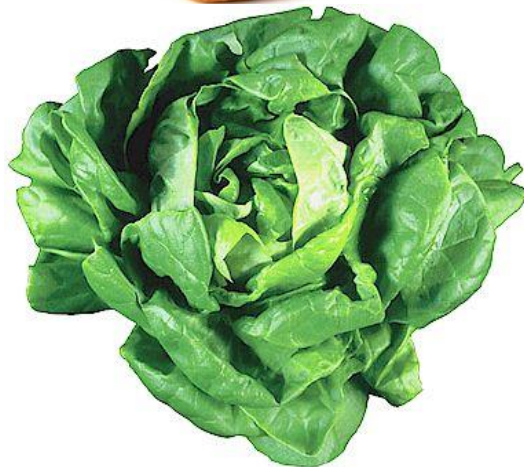
Fibre content of food



400 g wholemeal bread =
30 g SANACEL- fibres



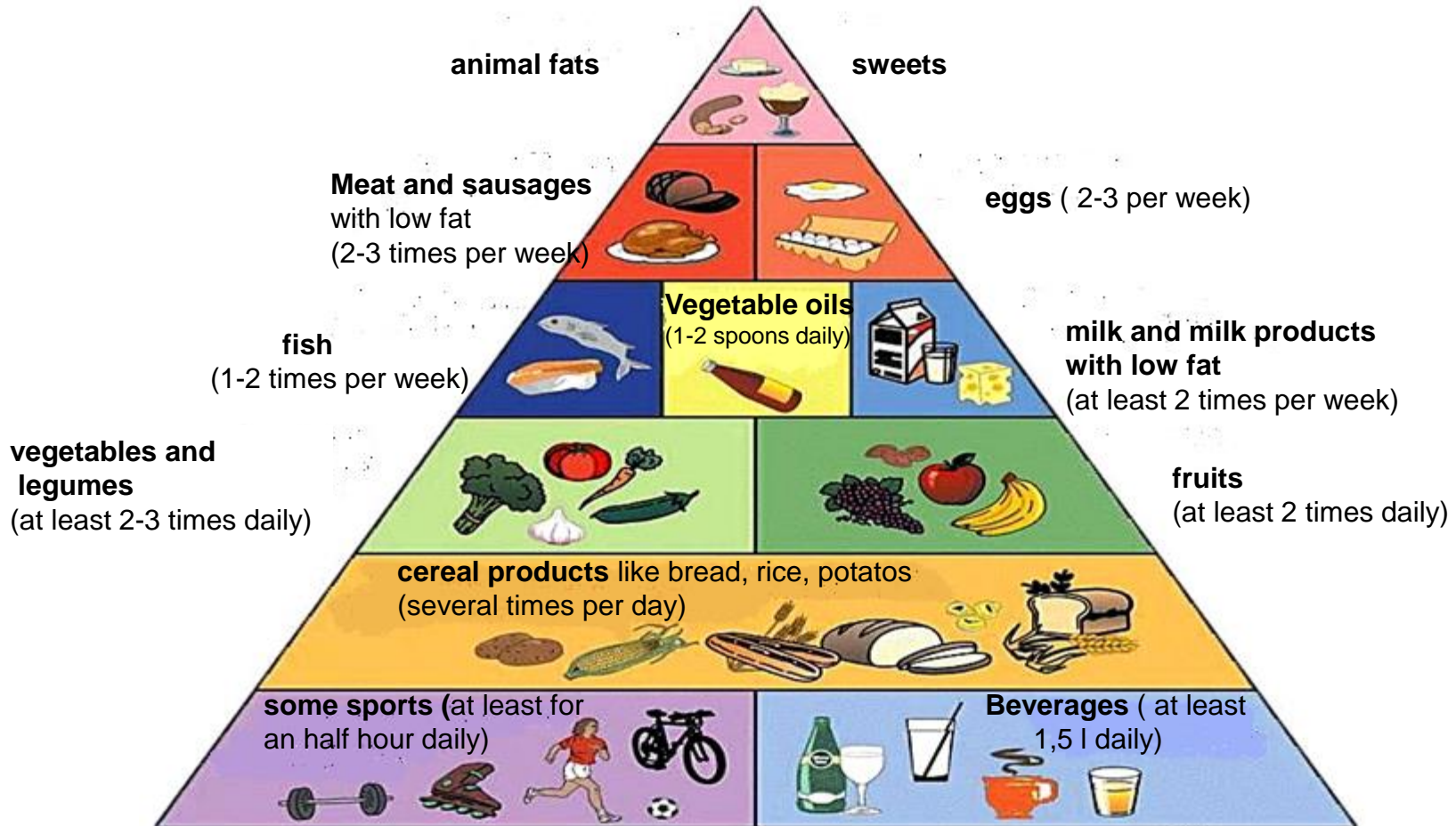
1,5 kg apples =
40 g apple fibres SANACEL AF 401



1,5 kg lettuce =
30 g SANACEL- fibres



FOOD GUIDE PYRAMID



Anforderungen an den Ballaststoff von heute:

High dietary fibre content

In order to achieve the desired dietary fiber content by using the lowest possible dosage with the benefit of no taste influence and reduction of the calorific value to a maximum extent.

Balanced dietary fibre spectrum

In order to meet with the requirements of the nutritional medicine for an optimal relation between soluble and insoluble dietary fibers.

Demands on a modern dietary fibre:

Dietary fibre content as high as possible!

quality

- bright colour
- neutral taste
- low residue solvents
- low germs
- gluten free

fibres as functional additives

- high water binding capacity
- high oil absorption
- insoluble fibre network
- Heat resistant



CFF- FOOD FIBRES

serve all

demands on a modern

dietary fibre !

DIETARY FIBRE ENRICHMENT WITH FOOD FIBRES FROM CFF IN ALL APPLICATIONS OF FOOD INDUSTRY.

- all kinds of bread
- dietary fiber drinks
- cake, fine bakery goods
- dietetic products
- noodles, extrudates
- fruit fillings
- meat – and fish products
- milk products

NUTRITIONAL PHYSIOLOGICAL EFFECTS WITH FIBRES FROM CFF

- reduction of calories
- high effect of saturation
- support weight control
- relieves the metabolism in cardiovascular diseases
- regulation of blood glucose level
- reduction of cholesterol levels
- improvement of digestion

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Passionate about fibres

And here are the dietary fibres of CFF:

SANACEL® wheat (wheat fiber)

Type	Fiber length
SANACEL® wheat 30 G	Particle size 50 µm
SANACEL® wheat 30	35 µm
SANACEL® wheat 90	80 µm
SANACEL® wheat 90 OC	80 µm
SANACEL® wheat 150	150 µm
SANACEL® wheat 200	250 µm
SANACEL® wheat 400	400 µm

SANACEL® (powdered cellulose E 460 ii)

Type	Fiber length
SANACEL® 30 G	particle size 50 µm
SANACEL® 90	60 µm
SANACEL® 150	120 µm
SANACEL® 200	300 µm

SANACEL® oat (oat fiber)

Type	Fiber length
SANACEL oat ® 30	35 µm
SANACEL oat ® 30 G	50 µm
SANACEL oat ® 50	50 - 100 µm
SANACEL oat ® 90	80 µm
SANACEL oat ® 200	250 µm
SANACEL oat ® 300	250 - 400 µm

SANACEL®bamboo (bamboo fiber)

Type	Fiber length
SANACEL®bamboo 40	50 µm
SANACEL®bamboo 90	80 µm
SANACEL®bamboo 150	100 µm
SANACEL®bamboo 200	350 µm
SANACEL®bamboo 300	> 350 µm
SANACEL®bamboo 1000	500 µm

Products with soluble and insoluble parts

SANACEL® pot (potato fiber)

SANACEL® AF 401 (apple fiber)

Type	Fiber length
SANACEL® pot 90	< 200 µm
SANACEL® pot 400	<1000 µm
SANACEL® AF 401	< 300 µm

Products with soluble and insoluble parts

SANACEL add® ... (fiber blends)

Type	Fiber length
SANACEL® add FA	< 60 µm
SANACEL® add FB	< 60 µm

SANACEL® betaG(barley fiber)

Type	Fiber length
SANACEL® betaG	< 600 µm

CFF „By your side“

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Thank you for your attention