

Presentation
by
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for
FDA Public Meeting on Acrylamide
in the U.S. Food Supply
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(Actual delivery may differ from these prepared remarks.)

Good morning.

We have invited you to this meeting
to share with you
what we know,
what we don't know,
and what we need to find out
about acrylamide as a potential
public health hazard.

You will also hear
how we plan to conduct
the necessary research, and how
we want to utilize its results.

We're dealing with a matter
of public health significance,

because the new knowledge
about acrylamide
that our agency and its partners
expect to develop

could show us the way on

how to prevent or reduce a risk
that may be present
in important part of our diet.

So the issue before us
is not only an intriguing
scientific challenge,
but it is of primary interest
to consumers.

That's why we will outline for you --
and submit it for public comment --
our plan for characterizing
and managing the potential health hazard
that might be caused by consumption of foods
containing acrylamide.

My colleagues will have
a lot to say about acrylamide
and our action plan,
but in general,
this is the issue before us:

[BRIEF PAUSE]

Last spring, researchers at the Swedish National Food Administration and Stockholm University analyzed samples including several favorite American food products, and found that they contained various levels of acrylamide.

Their study suggested that acrylamide formation is particularly associated with carbohydrate-rich foods that are oven-baked or fried at high temperatures.

Since then, scientists in Norway, United Kingdom and Switzerland have come up with similar findings,

and our own preliminary analysis appears to be in basic agreement with these results.

For example, the FAO/WHO Consultation on the Health Implications of Acrylamide in Foods that was held in Geneva on June 25-27, 2002 reported that acrylamide levels in 39 samples of potato chips ranged from less than 1.4 micrograms to 100 micrograms per one ounce of potato chips, with a mean level of 15 micrograms,

and 41 samples of soft bread contained acrylamide levels ranging from less than 30 micrograms to 162 micrograms per kilogram, which is little more than two one pound loaves, with a mean level of 50 micrograms.

On the basis of the WHO/FAO consultation's findings, and our own preliminary evaluation of the science, this discovery of acrylamide in food, at the levels seen, is a concern and a potential health hazard. Our concern is not so much because of what we know about the chemical --

which is relatively little --

but rather because of what we don't know about it.

[BRIEF PAUSE]

We know that acrylamide
is an organic chemical
that is most widely used

as a coagulant in water treatment,
but has many other industrial uses,
including in the production
of other organic chemicals,
dyes, and plastics.

We also know --
and have known for some time --
that acrylamide causes cancer
in laboratory animals.

What we don't know
is the answers to the many
public health questions
that these new findings raise,

the most crucial of which is,
of course, to what extent --
if any --
acrylamide in food
presents a hazard to human health.

Epidemiological studies
conducted in the past
did not show increased cancer risk

in people exposed to acrylamide,
but the studies were limited in scope,
and did not include ingestion
of the chemical in food.

We therefore need to investigate
whether acrylamide in food
is a potential human carcinogen,
or whether it is genotoxic --
whether it can cause mutations
of germ cells.

We need to know in which foods
acrylamide occurs;

what is the level of exposure
for the general population;

what is the bioavailability
of acrylamide in food;

and what are the biomarkers
of acrylamide exposure.

And we need to know more

about acrylamide formation

so that --

if the chemical does prove

to pose a risk to humans --

we can suggest how to modify

food processing techniques

to prevent or reduce

the formation of that chemical.

[BRIEF PAUSE]

This is the task,

and as you will hear in more detail

from my colleagues,

we're working on it.

We're in the process

of assessing our consumers'

dietary exposure to acrylamide;

we're gathering new information

about its toxicology;

and we are participating
in the investigation
of how and under what cooking processes
acrylamide is formed in food.

We have already developed
a method to determine the levels
of the chemical in foods,
and we are using it to test
scores of different products.

But as you will hear later
in more detail,
a great deal has to be done
to find scientific answers
to the questions about acrylamide

that would enable us
to accurately measure the risk
that chemical may pose to the public health,

and, if necessary,
try to devise a way or ways
of managing it.

Foods rich in carbohydrates are
and have been for centuries
the robust basis of human diet,

and we must make sure
that its ingredients enhance,
and not imperil, human health.

This is the ultimate purpose
of our action plan. [And our overall goal is:](#)
[Through scientific investigation and risk management decision making, prevent and/or](#)
[reduce potential risk of acrylamide in foods to the greatest extent feasible.](#)

It's an essential goal
for the protection of public health,

and I take your presence here
as a sign
that we can count on your help
in our efforts to reach it.

Again, thank you for coming.

I hope that you will find
our presentations

both informative and stimulating.