

English Translation of the spoken texts in the Zembla program about EDCs

(Transl. by Noline Herblot, Vara.nl)

00.20

Early this year, the World Health Organisation published an alarming report about the risks of Endocrine Disrupting Chemicals. According to WHO these chemicals pose a particular threat to small children and the developing foetus.

Some of these chemicals can change the endocrine system, and as a result these babies can have fertility problems later in life. Also breast and testicular cancer and some metabolic diseases are associated with these chemicals.

Endocrine disrupting chemicals are all around us: for example they are in plastic, in the lining of tin cans, in pesticides on our food and in cosmetics. Countries like France, Belgium and Denmark take measures to ban/prohibit these chemicals.

Quote claus

Zembla investigates: what is the Dutch government doing to make us aware of the risks of these chemicals of high concern?

Title: chemicals of high concern

01.33

We start our investigation in the Hoorn Hospital where we have an appointment with pediatrician Gavin ten Tusscher. On his Neonatal ward he has replaced almost all the equipment with endocrine disrupting chemicals in it. The plastic tubes, drip hoses and breathing apparatus contain those chemicals to make them flexible. These are the so called softeners - phthalates.

Ten tusscher:

I will show you, 5 years ago we looked in every closet, every drawer: which products do we use? Do they contain chemicals like phthalates which are harmful to a child? We did not want those.

Here is an example: an infusion tubing.

This is made of plastic? Yes.

Explain please, why is this harmful, you talk about softeners and phthalates, but how do they end up in the baby?

The problem with the phthalates is, they let leach out of the plastic. And they combine with the liquid in the tube been given to the baby.

That's harmful for babies?

Yes, once in the body it can spread everywhere, and then there is a chance the hormones can be affected.

02.44

Hormones are substances that cause the organs, brains, immune, and reproductive system to develop healthily in babies. This process can be disrupted by endocrine disruptors. This can have serious consequences ...

Ten tusscher:

What you see in people is a huge increase in breast cancer in the last generation or men with testicular cancer. Boys are born with urethra ending in the wrong place, or testicles which are not descended into scrotum. We cannot explain this by genetic changes. Therefore, there are strong suspicions there must be more to this. Environmental factors and endocrine disrupting chemicals.

In North America, a study was conducted. What they have done, they have looked at preterm children where it was likely that they had been on a drip for 2 weeks. They checked the urine every few days, to see if they could find levels of phthalates. They found it in all samples.

More than in children who do not have a drip?

Much more! The concentration the children had was 25 times higher than what you and I experience on a daily basis.

04.15

That's why Ten Tusscher does not want these phthalates in his medical devices.

For example, this one: here it is: no DEHP. So no phthalate. That's now. But 5 years ago it was not said on the outside.

You replaced it? There are no phthalates in your medical devices?

That's right. Most of the devices we replaced.

Why you started this, as a pediatrician?

Being a medical doctor you do not only want to treat people and make them better, you also want to prevent diseases. Being a pediatrician you are well aware, that it is not only the patient now, but the consequences are for 80, 90 years. A child is at the beginning of life! This is the beginning!

05.04

Ten Tusscher also points to the risks for pregnant women. Through the mother, the foetus in the womb is exposed to endocrine disruptors.

You can think of cosmetics, beauty products, but also in the food itself, packaging around the food, how we make food hot, eg if we use plastics. If you heat something in plastic, then those phthalates can get back into the food, and then you eat it.

05.37

It's not only phthalates that are hormone disrupting. Scientists are talking about at least 800 chemicals. They are everywhere: for example pesticides on fruits and vegetables may be hormone disrupting, the layer of plastic on the inside of a tin can may include Bisphenol A, a substance that is suspected to be hormone disrupting. In cosmetics are endocrine disrupting chemicals, that can get through the skin. And then we inhale these chemicals also from furniture, mattresses, electronics and toys which are often sprayed with various chemicals that evaporate into the air.

Ten tusscher:

A lot of those chemicals, especially substances that are transported through adipose (fat) tissue, can easily pass through the placenta back to child. That means: you are also exposed as foetus.

06. 28

Ten Tusscher is not the only one who is worried. Early this year, the World Health Organisation published a lengthy report, in which they evaluated the entire body of relevant knowledge on endocrine disruptors. The conclusion: endocrine disrupting chemicals are a global threat, a threat to the world.

0646

Less than 2 months later something unique happens: 89 leading scientists from around the world write a personal appeal to the European Commission. Asking that there should be more stringent measures and improved test methods with regard to endocrine disrupting chemicals. One of them is Professor Martin van den Berg, toxicologist at the University of Utrecht.

Measures must be taken! This declaration says: governments, European government, for god's sake be careful. Because these are chemicals of high concern, you have to handle them with care and caution. You should apply the precautionary principle to limit exposure until we know more.

07:29

What does it mean, the precautionary principle?

In practice it would mean that you ban these chemicals. Or at least give pregnant women the opportunity to inquire whether certain suspected chemicals are in a food product or not ... Until you've really proven that they can not harm humans.

07.52

Scientists are still investigating the exact effects of these chemicals on humans. Yet they think action should be taken now anyway.

Because it is already proven that these chemicals are harmful in animal embryos. In the Netherlands, this kind of research is done by the Canadian professor Juliette Legler, toxicologist at the Vrije Universiteit (Amsterdam). She has also signed the appeal.

I am worried because of our own research where we can demonstrate or have demonstrated that very early stages of development are very sensitive to these chemicals.

08:34

She has just completed major European research on the effects of endocrine disruptors. Now she is working on a follow-up study in which she exposes zebrafish embryos to these chemicals. She uses zebrafish especially because their embryos go through similar development like the human embryo .

We have seen that there was an altered hormonal balance, hormones involved in metabolism, such as insulin , glucose. We have seen that some animals became fatter, other animals became thinner, depending on which chemical we used. And we have seen that there were behavioural abnormalities suggesting neurological disorders in these animals.

Let's say now, for chemicals where we can say with reasonable certainty: in an animal they do something endocrine disrupting: we do not want to have these in our babies. Let's take action, let's take measures..

09.36

From animal studies it appears beyond doubt that endocrine disrupting chemicals are harmful. But what the chemicals exactly do to the human embryo, there is still no conclusive evidence. This research is in fact very complicated and it will take many years before results are there.

It is very difficult to perform this kind of research on humans. You should start with the pregnant woman, to see what she is exposed to. And because some of these disease processes, eg diabetes, will manifest later in life, you'll have to wait for many years, maybe decades, to see if the children of those women get these diseases. Does this effect occur and is it associated with maternal exposure? It is very difficult to prove it that way.

You say it yourself: it is not yet conclusively proven in humans. Nevertheless, you think something must be done. Are you not premature?

It is a very sensitive process, the development of the foetus in pregnant women. You want to protect them optimally against all kinds of negative effects from chemicals. When it is possible, do it! (protect them)

10.42

But does the government protect pregnant women? Are pregnant women informed about the risks of these chemicals? We look at the information leaflet the government has produced with obstetricians and gynecologists . Every pregnant woman gets this leaflet from her obstetrician. The words endocrine disrupting chemicals are not in the leaflet.

11.03

We continue our search. We look at the website the government has produced to educate women: toetpregnant.nl. Also, there is no information on the potential risks of these chemicals in everyday life. The website of the national nutrition center also gives no information on the potential risks of these chemicals in everyday life.

11.21

What we do find when we search the words “endocrine disruptors and pregnant”, is a website of the Danish Ministry of the Environment. They have an information campaign, designed to inform pregnant women about these chemicals.

11.38

We go to Denmark to investigate the background to this campaign.

11:48

In Copenhagen we visit the practice of midwife Amanda Sophia Falster and we see how pregnant women are informed.

12.56

Amanda Sophia always gives women information about this. It's standard procedure.

14.35

Meanwhile at our editorial office in The Netherlands we call the Dutch professional organisation for midwives. We want to know whether they educate pregnant women.

I was wondering if this topic has attracted your attention?

No, we do not have information about it.

So you do not inform your members about this topic?

No, not that I know of.

Is it not the job of a midwife to educate pregnant women about the potential risks of endocrine disrupting chemicals?

I don't know. We are there to educate pregnant women about a healthy lifestyle. It could be in the information leaflet for pregnant women...

No, there was no information about EDC's in the leaflet.

No.

According to WHO these chemicals pose a threat to human health!

Oh! If WHO takes this position, that's interesting, can you mail me the report please?

1536

In Denmark we go to the Environmental Protection Agency of the Ministry of the Environment, that has a campaign for pregnant women. We have an appointment with the officer who is responsible for it, Shima Dobel. She is a chemist and does a lot of research into the risks of these chemicals.

Why does the Department consider it that important to inform pregnant women?

1837

Back in the Netherlands we get a mail response from the professional organisation of midwives. They have studied the WHO report. They think not enough evidence exist yet, to start to inform pregnant women. They refer to the National Institute for Public Health and the Environment (RIVM), which also deals with this type of information campaign. We call RIVM with an interview request.

- Our question is: why is there no information campaign in the Netherlands to inform pregnant women about this?

19:06

They want our questions in writing to consider the request.

We also call the Ministry of Health with the same question: why is there no information campaign in the Netherlands? But they also want our questions first in writing.

19.19

Within 4 hours the Ministry answers it does not want to react on camera. It only wants to answer the questions in writing/ in print.

19:26

The next day we call again.

I wonder why the Minister does not want to give an interview on camera?

We have our own considerations with every request for an interview.

I understand, but what's the objection?

It is not about an objection. We have considerations, what is possible, what is not possible.

I think it is strange, I do not need to explain to you the considerations we have.

19.51

Back in Denmark. We visit the Academic Hospital in Copenhagen. The department, investigating fertility problems in men, was the first in the world to discover a link between endocrine disrupting chemicals and the increase in testicular cancer or poor sperm quality. That was in 1992.

20:15

Anne Maria Andersson is director of the laboratory department here and leads a special center on endocrine disruptors.

21.10

Testicular cancer and poor sperm may also have a genetic cause. But this was not the case for their patients:

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When the research team/ department discovered this, back in 1992, they successfully put it on the agenda of politicians. Something had to be done. The politicians listened. Why?

22.31

We go to the Danish parliament to interview parliament member Lone Loklindt. She is chairman of the Environment Committee, which also deals with endocrine disrupting chemicals. How did politics respond to the suspicions of the scientists?

23.15

Also the population puts pressure on parliament to do something:

23. 57

Since then Denmark is leading on banning endocrine disrupting chemicals in consumer products. Claus Jorgensen of the Danish Consumer Council shows us.

The Council has in recent years played a major role in raising public consciousness and public pressure in respect to the risks of endocrine disrupting chemicals.

24.44

In the Netherlands, only the European ban on six phthalates applies. In Denmark they consider that not enough and Denmark forbids them all.

26.01

Basically Brussels determines which chemicals are banned in which products on the European market. But it often takes a long time before Brussels takes such a decision.

Too long, they think in Denmark and in addition they think the bans are too limited. That's why they ban chemicals in many more products. Countries such as Belgium and France do too. But this is not the case in the Netherlands, we wait for European measures.

27.00

In the Netherlands, the RIVM has announced they don't want to give interviews on camera. However, we receive a 5 page text with answers to our questions. But that was not the intention, we wanted an interview on camera.

I have read your mail and I'd like to know why you do not want to cooperate?

Em yes it is not appropriate for us right now. It took a while and we had a lot of discussion about it. You have received a written answer to your questions. But we did not feel like cooperating.

2737

Back in Denmark, we read the responses of the RIVM.

To our question why we do not have a leaflet like the one in Denmark, they reply that not enough evidence exists yet to inform pregnant women right now.

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What's the reaction of the Danish parliament?

28.20

When asked why the Netherlands is not, like Denmark, banning more chemicals, RIVM replies that it is currently too early yet to take a position. Research is still ongoing.

28.51 (summary)

In Western countries infertility is raising. Certain hormone-related cancers as well. Scientists have strong evidence from animal studies that endocrine disrupting chemicals play a role in this. In Denmark, they consider these indications serious enough to take drastic measures. But in the Netherlands, the RIVM thinks it is still too early. There is not enough evidence yet.

Martin van den berg:

Rivm thinks you are too early/ premature with your worries, it says: not enough evidence exists yet!

We disagree. Not only me, on my side I have hundreds of other scientists, medical doctors, physicians and toxicologists. We all say: we have plenty of evidence from laboratory research that these are hazardous chemicals. We do not know enough about humans. But in case of vulnerable groups like pregnant women you should say: better safe than sorry. Apply the precautionary principle, rather than wait another 30 or 40 years to see if anything will happen.

Juliette legler:

There is plenty of evidence that there is a link between exposure and negative health effects in humans. So even if there is a bit of uncertainty in science, we must take action now, we must say now: it is enough, we do not need these chemicals, especially not during early developmental stages, during pregnancy. We can do something. Now!

30.18

At our editorial office we receive an answer from our Minister of Health, Edith Schippers.

A leaflet like the one in Denmark is not necessary, because, according to her, this information is already sufficiently available.

30.33

But in the Dutch information leaflet on pregnancy, the words endocrine disrupting chemicals are not mentioned. However, there is an advice about other toxic chemicals that pregnant women should avoid:

Voice martin van den berg:

Pesticides for vermin, turpentine-based paint and chemicals such as photo developing fluid.

If I, as a toxicologist look at this advice, which pollutants should be avoided, we look at chemicals that are no longer relevant to the Dutch pregnant woman. Photo developing fluid, turpentine based paint...normal households do not use (vermin) pesticides I think.

So I would say: this should be replaced by more modern insights.

31.20

We go to pregnancy yoga in Utrecht.

31.30

We show them the Danish leaflet.

It is really in everything! Things you use at home, in the bathroom, in the kitchen. Daily things. You get scared actually. You have to consider many things.

It has implications all over the place. As I read here: it is important that you regularly vacuum your house. Well, of course you do. But when you read here that products release chemicals that end up in your home-dust and therefore you inhale those chemicals, then it has far-reaching consequences.

What do you think? Does it scare you, the leaflet, or do you want to have a leaflet like this in the Netherlands?

On the one hand it worries me because it is in everyday products. But I'd rather be aware of things, so I can do something about it, than being unaware and do things wrong.

Yes it is a must-have. Many people do not know anything about it. It's about everyday things,...you want the best for your child! I think it is very important.

I also think it is very important. This should be standard in the Dutch information leaflets for pregnant women.

But that's not the case.

No. That's shocking.

The National Institute for Public Health and the Environment, the RIVM, says it is too early to warn pregnant women.

No sorry! if you say that, then I think that's wrong.

This is practical advice. You can already warn anyway. Prevention is better than cure, if cure is possible...

The Danish government produces this leaflet?

The government in Denmark is this?

Yes.

It is nice if you can have a choice. At the moment you do not have this information at your disposal, you cannot make a choice. You do not have the opportunity to make a choice. I think it is very unfortunate the Dutch government decides for us, so we do not have a choice!

34.17

We have also asked the Minister why she does not apply the precautionary principle and prohibits certain chemicals, like other countries do. She replies that she sees no reason to take additional measures.

Martin van den berg:

Yeah that's remarkable! The Minister seems to have more expertise and knowledge than hundreds of scientists, physicians, toxicologists. They all say: we must be careful with these chemicals. They are all diametrically opposed to the Minister.

34.48

In addition, the Minister believes that Europe has already responded appropriately regarding the banning of chemicals. But why does the Netherlands follow Europe and why do we not take measures on our own?

Martin van den berg:

I think in the Netherlands the last 10 years economic interests often prevailed over the protection of the environment and human health.

These are chemicals that in some way have an economic interest. So the development of a new chemical or the removal of a suspected endocrine disruptor costs money. That means more investment from industry and that costs money. Not all governments are willing to impose this, to make it an obligation to develop new chemicals.

To industry?

Yes to industry. And the self-regulating ability of industry to develop new chemicals themselves, I think, is quite limited .

35.44

We approach the Association of Dutch Chemical Industry. We want to know their policy regarding endocrine disrupting chemicals.

I heard my voice mail. You do not want to talk with us about endocrine disrupting chemicals.

No, at this time we won't. We talk with the government right now. We sniff each other, so to speak. What's the position of both? What should be done? That is not at all clear, because the government has not taken a position regarding endocrine disrupting chemicals. That is why we see no added value to go public now.

36.23

Minister Schippers lets us know that she considers a leaflet like the one in Denmark not necessary, because all consumer products are safe when used properly. But according to the scientists the tests to determine the safety are not accurate enough.

Juliette legler:

We showed in our study adverse effects, endocrine effects, we showed them at concentrations that are lower than where current standard tests say: it is safe.

Martin van den berg:

It means the standard tests that are used to test whether or not chemicals have these kinds of effects, do not meet the requirements. Chemicals can slip through, they are not detected. An improvement of test methods is required and those must be aimed at, in particular, early stages of life: the foetus.

Juliette Legler:

You say, the way we test whether chemicals are safe or not, this is not enough, not safe enough?

It is not enough to display the endocrine effect of chemicals.

I always thought about the things that I use, that they are safe and that they are tested?

They are indeed tested and they are basically safe for your health as a grown up adult. But we do not know for sure because it has not been tested: what about the endocrine disrupting effects of these chemicals at low dose concentrations in very sensitive stages.

If you are pregnant, if you are a little child?

Yes. That is not sufficiently tested.

37.52

Furthermore, the regulations do not take into account the fact that a pregnant woman is exposed to several endocrine disrupting chemicals simultaneously. Only for each chemical seperately it is considered if the exposure is not too high.

Juliette Legler:

Actually, we must take into account the mixture of chemicals that we are exposed to, the so-called cocktail of chemicals.

Because it is in everything and in different products, different endocrine disrupting chemicals are used?

Yes absolutely. The way we now test safety is on the basis of chemical by chemical. That's not the reality. We are exposed to many chemicals at the same time.

How are you going home now and how will you look at the products at home, now you know all this?

I'm going to ask you, please can I take this leaflet home with me?