

Tweede Kamercommissie voor Infrastructuur en Waterstaat

*Datum:* 30-9-2026

*Kenmerk:* U26-087

*Onderwerp:* Bescherming van kinderen tegen PFAS en andere hormoonverstorende stoffen

Geachte leden van de Tweede Kamercommissie voor Infrastructuur en Waterstaat,

In aanloop naar het commissiedebat leefomgeving van 6 oktober a.s. vragen wij namens de Nederlandse Vereniging voor Kindergeneeskunde (NVK) uw aandacht voor de risico's van PFAS en andere hormoonverstorende stoffen. Kinderen zijn bijzonder kwetsbaar voor deze stoffen omdat hun organen, immuunsysteem en hormoonstelsel zich nog volop ontwikkelen. Het terugdringen van hun blootstelling is noodzakelijk om hun groei, ontwikkeling en gezondheid te beschermen.

Als kinderartsen zetten wij ons in voor een gezonde start en een gezonde leefomgeving. Het voorkomen en tijdig behandelen van aandoeningen in de kindertijd helpt het risico op chronische ziekten op volwassen leeftijd te verminderen. Bescherming tegen schadelijke stoffen maakt daar deel van uit.

**Blootstelling begint al vóór de geboorte**

Blootstelling aan hormoonverstorende stoffen, EDC's, kan al vóór de geboorte plaatsvinden via de placenta en daarna via moedermelk. Daarnaast komen kinderen met deze stoffen in aanraking via drinkwater, voedsel en alledaagse producten, zoals speelgoed, plastic flessen, kleding en voedselverpakkingen.

**Kinderen zijn extra kwetsbaar**

Kinderen zijn extra kwetsbaar doordat hun organen en hormoonsystemen nog volop in ontwikkeling zijn. In verhouding tot hun lichaamsgewicht eten en drinken zij meer en door contact met vloeren kunnen ze relatief veel stoffen binnenkrijgen. Ook zeer lage doses kunnen belangrijke ontwikkelingsprocessen verstoren. Blootstelling tijdens een gevoelige ontwikkelingsfase kan een leven lang doorwerken en mogelijke effecten kunnen bovendien soms pas op latere leeftijd zichtbaar worden.

**Risico's voor ontwikkeling en latere gezondheid**

Het achtergronddocument van de European Society for Paediatric Endocrinology (ESPE) van april 2025, waarnaar wij in de bijlage verwijzen, beschrijft onderzoek naar verbanden tussen blootstelling aan hormoonverstorende stoffen en onder meer obesitas, diabetes, een verstoorde puberteitsontwikkeling, verminderde vruchtbaarheid en hormoongerelateerde kanker. Ook zijn er aanwijzingen voor effecten op de neurologische ontwikkeling, waaronder leren en geheugen.

**Bijzondere aandacht voor PFAS**

Binnen de aanpak van hormoonverstorende stoffen vragen wij specifiek aandacht voor PFAS. Deze stoffen komen wijdverspreid in het milieu voor, breken moeilijk af en kunnen al vóór de geboorte van

moeder op kind worden overgedragen. Onderzoek laat verbanden zien tussen hogere PFAS-waarden in het bloed van jonge kinderen en een zwakkere reactie op vaccinaties. Ook zijn verbanden gevonden tussen prenatale blootstelling en een afwijkende timing van de puberteit bij meisjes.

#### **Een brede preventieve aanpak**

De Europese inzet voor speelgoedveiligheid en het verbod op bisfenol A (BPA) in voedselcontactmaterialen zijn stappen in de goede richting. Tegelijkertijd worden kinderen niet aan één afzonderlijke stof blootgesteld. Zij kunnen gedurende hun ontwikkeling met verschillende stoffen in aanraking komen. Voor een adequate bescherming van kinderen is daarom een bredere preventieve aanpak nodig.

Wij vragen u daarom, mede namens onze sectie Kinderendocrinologie en onze expertisegroep Duurzaamheid, de bescherming van kinderen nadrukkelijk mee te wegen in de besluitvorming over PFAS en andere hormoonverstorende stoffen. Wij verzoeken u het kabinet aan te sporen tot een brede preventieve aanpak die blootstelling zoveel mogelijk voorkomt, zowel in Nederland als in Europees verband. Daarbij vragen we expliciete aandacht voor de gevolgen voor kinderen. Door de blootstelling terug te dringen, beschermen we de gezondheid van kinderen nu en verkleinen we de risico's voor hun latere leven en voor toekomstige generaties.

Met vriendelijke groet,  
Gijs van Well



Dr. G.Th.J. van Well  
Kinderarts-infectioloog/immunoloog  
Voorzitter NVK

Bijlage:

Achtergronddocument van de European Society for Paediatric Endocrinology (ESPE), april 2025



## BACKGROUNDER EDCs AND CHILDREN

### What is the issue?

#### Exposure of fetuses and children is unavoidable and has severe health consequences

We are all exposed to synthetic endocrine-disrupting chemicals (EDCs) starting from embryonic life. [A foetus is exposed to dozens, perhaps hundreds of EDCs](#) in their body before being born. This can significantly affect crucial developmental processes of the fetus and infants as [they are extremely sensitive at this early stage of their life](#) to very low doses of hormones and EDCs.

Exposure is unavoidable as EDCs are present everywhere in our daily life. Children are particularly exposed through the placenta, breast milk, toys, plastic bottles and clothes as well as the floors on which babies crawl.

[Children are more vulnerable to exposure in comparison to adults.](#) This is because of breathing space closer to the floor, lower body weight, differences in water and food intake, developing organ systems and longer lifespan durations over which cumulative toxic effects might gradually manifest.

Existing peer-reviewed studies provide ample evidence for the association between fetus or childhood exposure to EDCs and the onset of numerous illnesses including endocrine cancer, obesity, disturbed timing of puberty, impaired fertility, neurodevelopmental alterations and many rare diseases in later life (overview of key studies below).

[EDCs, for example, alter the normal development of the brain and impair learning and memory in children.](#) This has been shown in [animal studies](#) as well as in [human population data](#). [Laboratory data also show](#) that very low doses of EDCs disrupt the mechanisms controlling puberty, reproduction and obesity.

#### Children and Per- and polyfluoroalkyl substances

[Per- and polyfluoroalkyl substances \(PFAS\) are a group of over 10,000 manmade chemicals used](#) as oil and water repellents and coatings for common products including cookware, carpets, and textiles. These EDCs either do not breakdown, or do so very slowly over many years when they are released into the environment and into our bodies, and they continue to accumulate over time.

PFAS are "forever chemicals", chemicals that are very persistent in the environment and in the human body. [They are transgenerational](#) and can migrate via the placenta from mother to child during the prenatal period.

In addition to the aforementioned health effects, higher serum PFAS levels in infants [have been associated with a lower vaccination response](#), and prenatal exposure has been [associated with aberrant timing of puberty in girls](#). A recent [study showed](#) that nearly 60% of children's textiles labelled "waterproof", "stain-resistant", or "environmentally friendly" contained toxic PFAS substances.



## **Endocrine Disruptors and their effects on pubertal development**

Endocrine disruptors can affect prenatal growth and cause precocious or delayed puberty and abnormal growth. Precocious puberty can lead to shorter adult height and social and emotional problems, while delayed puberty can cause feelings of anxiety and low self-esteem persisting in adult life.

[Studies suggest](#) that EDCs may also contribute to infertility later in life by disrupting the development of germ cells, which are precursors to sperm and egg.

## **What needs to happen?**

While decision makers including at the EU level have become more aware of the risks that EDCs pose for population health, current policies and legislation do not accurately address the specific impact EDCs have on children even before they are born. More can and should be done to avoid early exposure by focusing on the elimination of PFAS, Bisphenols and other EDCs in all food, and other products including cookware, food contact material, cosmetics, clothing, toys, food packaging and floors.

## ***Steps in the right direction, but shortcomings remain***

- The ongoing PFAS restriction proposal submitted to the European Chemical Agency by authorities from The Netherlands, Norway, Germany, Sweden and Denmark is an important first step in the right direction. As outlined in the restriction proposal as well as the EU Chemicals Strategy for Sustainability, PFAS should be limited to essential use only.
  - Essential for ESPE means that PFAS should only be employed in those uses that are critical for the functioning of society and where no alternatives are available. Investments are needed to rapidly develop alternative substitutions with less harmful substances.
- In April 2025 the European Parliament and Council achieved a provisional agreement on a Toy Safety Regulation replacing the toy safety directive from 2009. Under the new regulation, specific harmful chemicals will be banned, including known or suspected endocrine disruptors for humans or for the environment. This list includes 10 of the most toxic bisphenols and PFAS (per- and polyfluoroalkyl substances). While ESPE experts explicitly called for group bans for all PFAS as well as bisphenols due to their proven harm to children's health and well-being, ESPE welcomes the current compromise of banning a limited number of chemicals as an important step forward in reducing children's exposure to EDCs.
  - Now that it has a strong legislative basis, the Commission must ensure that the necessary assessments are indeed performed before toy products enter the European market and that large online retailers comply with the regulation and refrain from exploiting potential loopholes.



- The Commission has in December 2024 adopted a ban on the use of Bisphenol A (BPA) in [food contact materials](#), due to its potentially harmful health impact. BPA is a chemical substance used in the manufacture of certain plastics and resins.
  - ESPE welcomes this important development which is long overdue taking into account that BPA was already identified as potentially being harmful for our health in the 1930's. Moreover, ESPE favours group bans whereby all types of bisphenols would have been addressed to avoid regrettable substitution.

### ***Outstanding challenges***

The upcoming revision of [REACH - Registration, Evaluation, Authorization, and Restriction of Chemicals](#) scheduled in Q4 this year and other legislation in the area of EDCs must address a wide range of outstanding issues including the following to accomplish a toxin free environment for children and their families:

- 1) Ban of EDCs in all consumer products including cosmetics and toys. Under the new Toy Safety Regulation a mechanism is in place to ban additional EDCs at a later stage.
- 2) Precautionary principle applied for suspected (category 2) EDCs as outlined in the CLP classification of hazard classes, meaning that they would not be allowed on the EU market before more thorough assessment has confirmed them to not cause any form of hazard to human/animal health and/or biodiversity.
- 3) Group restrictions for Bisphenols, PFAS and other EDC groups of chemicals that have been proven repeatedly to be a hazard. This is to avoid regrettable substitution.
- 4) Universal PFAS ban with only limited individual exemptions for society critical applications vs current debates around blank exemptions for the pharmaceutical and medical devices industry
- 5) More extensive information about requirements and independent assessments of current chemicals on the EU market as well as new chemicals that would like to obtain access. These rules should be widely implemented including for companies outside the EU.

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### **Key studies**

Perez F et al. (2013) [Accumulation of perfluoroalkyl substances in human tissues](#)

Braun JM. et al (2017) [Early-life exposure to EDCs: role in childhood obesity and neurodevelopment](#)

Street. ME. et al (2020) [Endocrine-Disrupting Chemicals in Human Fetal Growth](#)

La Merrill MA et al. (2024) [Consensus on the key characteristics of metabolism disruptors](#)

Bali D et al. (2023) [The impact of the endocrine disruptors on child health](#)



### **Useful links**

[ESPE statement](#): The detrimental impact of Per- and polyfluoroalkyl substances on children

[ESPE statement](#) following the provisional agreement between the Council and European Parliament on the Toy Safety Regulation.

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April 2025, Brussels

### **About ESPE**

The European Society for Paediatric Endocrinology (ESPE) is an international society registered in Europe that promotes the highest levels of clinical care for infants, children and adolescents with endocrine problems throughout the world, including in less advantaged areas. At the EU level, it works with the EU and partner organisations to create a healthier environment for children and adults.

To find out more about ESPE, please visit [eurospe.org](https://eurospe.org).