

# Phenytoin

Evaluation of the effects on reproduction, recommendation for classification

No. 2018/15, The Hague, June 27, 2018

## Executive summary

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Health Council of the Netherlands



At the request of the Minister of Social Affairs and Employment, the Health Council of the Netherlands evaluated the effects of phenytoin on reproduction. This advisory report has been drafted by the Subcommittee on the Classification of Reproduction Toxic Substances of the Dutch Expert Committee on Occupational Safety (DECOS) of the Health Council, hereafter called the Committee. The Health Council has a permanent task in assessing the hazard of substances to which man can be occupationally exposed. More information about this task can be found at [www.gezondheidsraad.nl](http://www.gezondheidsraad.nl).

### Use of phenytoin

Phenytoin is a synthetic anticonvulsant, which can be used in the treatment of most types of seizure disorders and status epilepticus. Occasionally, phenytoin is used as an antiarrhythmic drug. Workers can be occupationally exposed to phenytoin in the pharmaceutical industry, in pharmacies or in hospitals.

### Classification according to strength of evidence for toxic effect

For assessing the effects on reproduction, the Committee evaluates the effects on male and female fertility and on the development of the offspring. Moreover, the Committee considers the effects of a substance on lactation and on the offspring via lactation.

If there are data indicating hazardous properties, the Committee recommends classification in a category based on the strength of the evidence. Based on that proposal, the Minister of Social Affairs and Employment can decide whether to classify the substance as toxic to reproduction. The classification is performed according to EU-regulation (EC) 1272/2008.

### Recommendations to the State Secretary

Based on the available scientific data, the Committee recommends to classify phenytoin only for effects on offspring development. There are insufficient data for classification with regard to effects on paternal and

maternal fertility and effects on or via lactation.

### *The Committee's classification proposal for phenytoin:*

- For fertility, the Committee recommends not classifying phenytoin due to a lack of appropriate data.
- For developmental toxicity, the Committee recommends to classify phenytoin in category 1B (*presumed human reproductive toxicant*) and to label it H360D (*may damage the unborn child*).
- For effects on or via lactation, the Committee recommends not labelling phenytoin due to a lack of appropriate data.



The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity.

The reports are available to the public.

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Preferred citation:

Health Council of the Netherlands. Phenytoin. Evaluation of the effects on reproduction, recommendation for classification. The Hague: Health Council of the Netherlands, 2018; publication no. 2018/15.

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