



## Pertussis Epidemic Sweeps Europe. What Happens in Greece

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It seems like an alert from ECDC has been issued again, referring to the ten - fold increase in pertussis cases in European countries, as well as in the United Kingdom and the USA. Therefore, the need to increase vaccination rates against pertussis arises again.

During the past year, almost 60.000 cases of pertussis were reported in the European Union comparing to 6000 in 2022, according to the ECDC. Pertussis is an infection with a high risk of complications, and even death for infants, especially those under 3 months old. Adults can also face serious complications when infected, particularly those with underlying medical conditions.

The rise in pertussis cases could be related to delayed vaccination in certain age groups, as well as the decreased circulation of the pathogen during the COVID -19 pandemic. The most vulnerable age groups to infection are infants under 3 months old who have not yet received the first dose of pertussis vaccination, children who have not completed the full vaccination schedule (4 doses), and adolescents who have not received the booster dose (given at 11-12 years in Greece according to the National Immunization Program) due to diminishing immunity towards adolescence.

In Greece, from the beginning of 2024 until now, 54 cases of pertussis have been reported, compared to only 9 cases in 2023. Of these cases, 32 were children and adolescents, including 11 infants under 12 months old. Tragically, a neonate and an adult lost their lives to the infection. Pertussis is an endemic disease that experiences epidemic flares every three to five years, even in countries with high vaccination rates. However, while epidemic waves could be related to low vaccination rates or decreased immunity in the general population, this could be partly due to a lower natural boost to the population during the COVID- 19 pandemic [1-6].

Vaccines against pertussis are safe and effective tools to protect the population from the lethal effects of this infection. It is impor-

tant to bear in mind that all deaths due to pertussis in Europe were recorded in infants less than 3 months old. We are talking about a vaccine preventable disease and in Greece the vaccination begins at 2 months of age as part of the basic vaccination schedule (combined vaccination against diphtheria, tetanus, pertussis, polio, haemophilus and Hep B) and are usually completed by 18 months. Booster shots may be recommended during adolescence, around the age s of 11 to 12, and then every 10 years thereafter to maintain immunity. It is important to adhere to the recommended vaccination schedule to protect against diseases effectively. It is indeed crucial for pregnant women to receive pertussis vaccination during each pregnancy, typically between 27 and 36 weeks of gestation. Not only does this protect the mother, but it also provides important immunity to the newborn, through antibodies that cross the placenta. That highlights the fact that protection from vaccination begins from utero. Additionally, it is recommended that all family members, especially those who will be in close contact with the newborn, be up-to-date on their pertussis vaccination to create a safe environment for the baby.

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