Immunisation Schedule

(Standard immunisation) for infants

MSD

INFECTOPHARM
Wissen wirkt.

Strong together for vaccinations – MSD in Cooperation with InfectoPharm

Because the First Year is Full of Milestones.

The protective vaccinations during the first year of life are also important milestones.

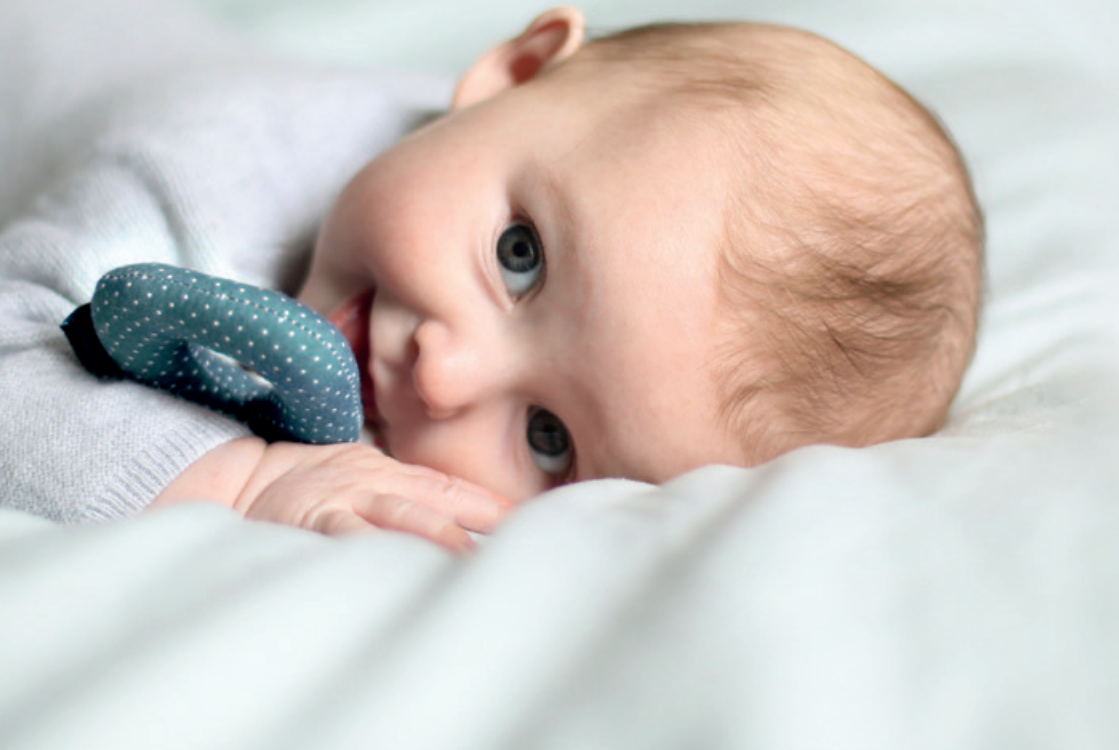
Starting with the completed basic immunisations during the first year.

Sprache: Englisch

Because the **First**

Eye Contact

is a **Milestone**.



Dear Parents:

Did you know that vaccinations are among the most important preventive measures in modern medicine? A large part of vaccinations is carried out in the early childhood years – but vaccinations are definitely not only „kid stuff“. Adolescents and adults should also receive booster vaccinations so that continuous immunity can be maintained against deadly infectious diseases. At the same time, the risk of contagion, e.g., for unprotected infants, is minimized if there is a high vaccination rate among the population.

We have compiled information for you in this brochure on the important topic of “Vaccinations during the first year of life”. At the end of the brochure, you will find a vaccination calendar for the basic immunisations to be completed during the first year of life as recommended by the German Standing Committee on Vaccination (STIKO).

Vaccinations for infants and small children

Vaccinations during the infant stage are important milestones for efficient defense against numerous pathogens. A high percentage of parents in Germany decide to have their children vaccinated, resulting in approximately 95 % of first graders receiving essential basic vaccinations. The current statistics for Germany show that extensive immunity is important. Outbreaks of infectious diseases such as measles, pertussis or mumps have been observed repeatedly in recent years. These sometimes severe diseases are highly contagious and can spread rapidly. To prevent further outbreaks in Germany, it is recommended that as many infants and small children as possible receive vaccinations according to the current recommendations of the STIKO. The STIKO recommends the use of combination vaccines during infancy and early childhood, which can protect against multiple diseases. The advantage of these vaccines is that they allow for a significant reduction in the number of injections required.

Passive immunisation for infants and small children

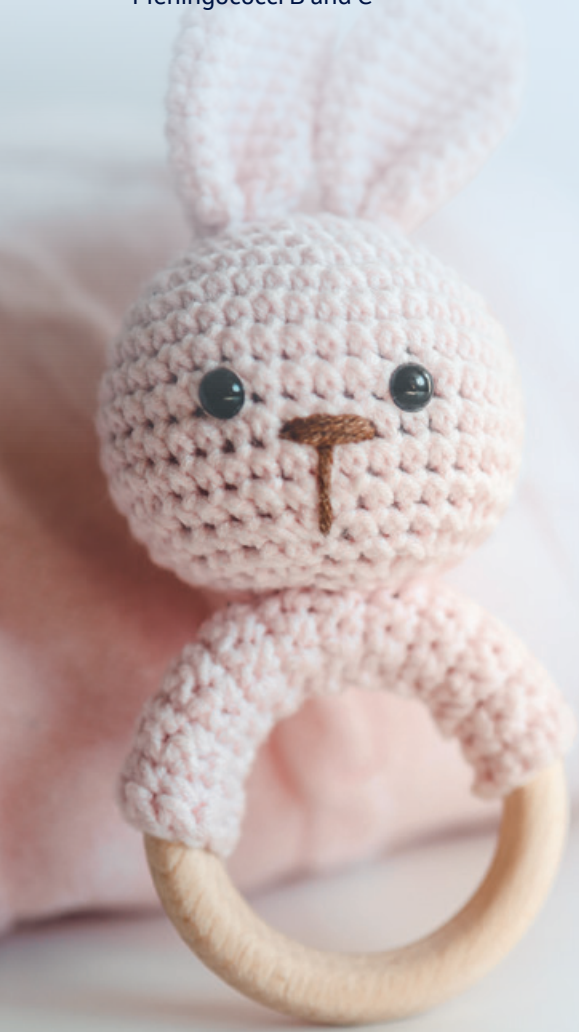
STIKO recommends not only vaccinations for newborns, infants, and small children under the age of 12 months, but also passive immunisation against respiratory syncytial virus (RSV). Prophylactic treatment of RSV protects against severe respiratory illnesses caused by RSV using a monoclonal antibody. Unlike a normal vaccination, which stimulates the immune system to create its own antibodies, prophylactic treatment of RSV offers immediate protection by directly administering prepared antibodies. However, this protection only lasts for a limited time.

The STIKO currently recommends that infants and small children receive vaccines/passive immunisation against:

- **Tetanus**
- **Diphtheria**
- **Pertussis**
- ***Haemophilus influenzae* type b** (Hib)
- **Polio**
- **Hepatitis B**
- **Pneumococci**
- **Rotavirus**
- **Mumps**
- **Chicken pox**
- **Meningococci B and C**
- **Rubella**
- **Measles**
- **RSV (passive immunisation)**

Important: For basic immunisation, the following vaccinations, as recommended by STIKO, should be completed during the first year of life:

- Rotavirus*
- 6 x vaccination against tetanus, diphtheria, pertussis, *Haemophilus influenzae* type b (Hib), poliomyelitis; polio for short, liver inflammation (hepatitis B)
- Pneumococci
- Meningococci B and C



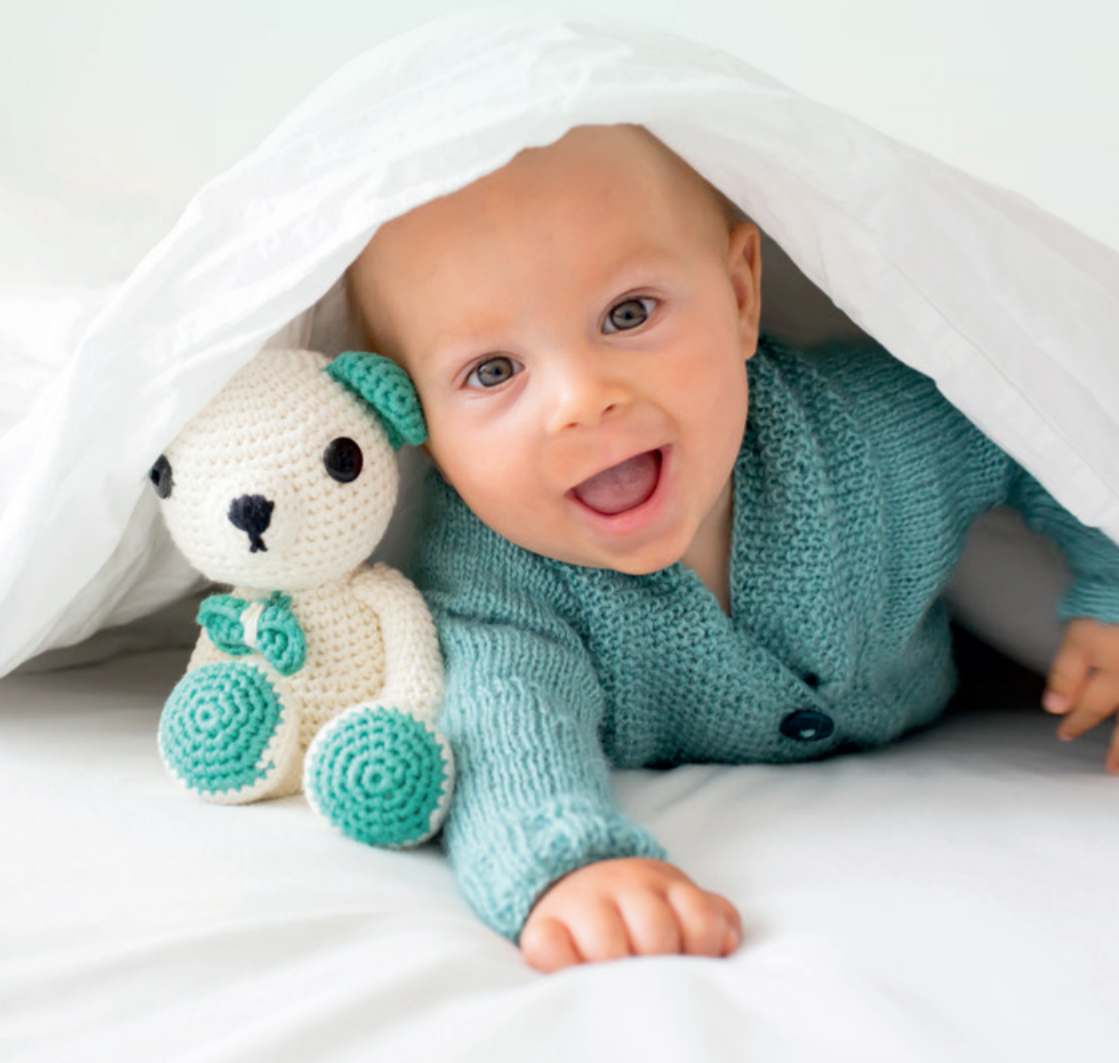
You can find all the important information about these five vaccinations, the prophylactic treatment of RSV, and the underlying diseases on the following pages.

* Since the risk of complications increases with increasing age of the child to be vaccinated, the STIKO urgently recommends that the vaccinations be completed early. The series of vaccinations should be started by the age of 12 weeks at the latest and – depending on the vaccine – should be preferably completed by the age of 16 or 20 to 22 weeks, however, by the age of 24 or 32 weeks at the latest.

Because the **First**

Smile

is a **Milestone**.



Rotavirus infections

Pathogen	Rotavirus
Transmission	Smear infection or via contaminated objects
Clinical symptoms	Watery diarrhea as well as sudden vomiting and abdominal pain, frequently mild fever, cough and sniffles. Infants and small children usually develop a severe course of the disease due to considerable fluid loss and must be treated in the hospital.
Vaccination	Single vaccine; basic immunisation with an oral vaccine during infancy

Lockjaw

(Tetanus)

Pathogen	Bacteria *Clostridium tetani*
Transmission	The bacteria hide in the earth and enter the body via small wounds or pricks, e.g. due to splinters, nails or thorns.
Clinical symptoms	Cramps of facial muscles or other muscle groups. Complications: cramps of the larynx and chest muscles can lead to death by asphyxiation.
Vaccination	Single or combination vaccine; basic immunisation during infancy and early childhood, booster vaccination in adolescence as well as every ten years during adulthood

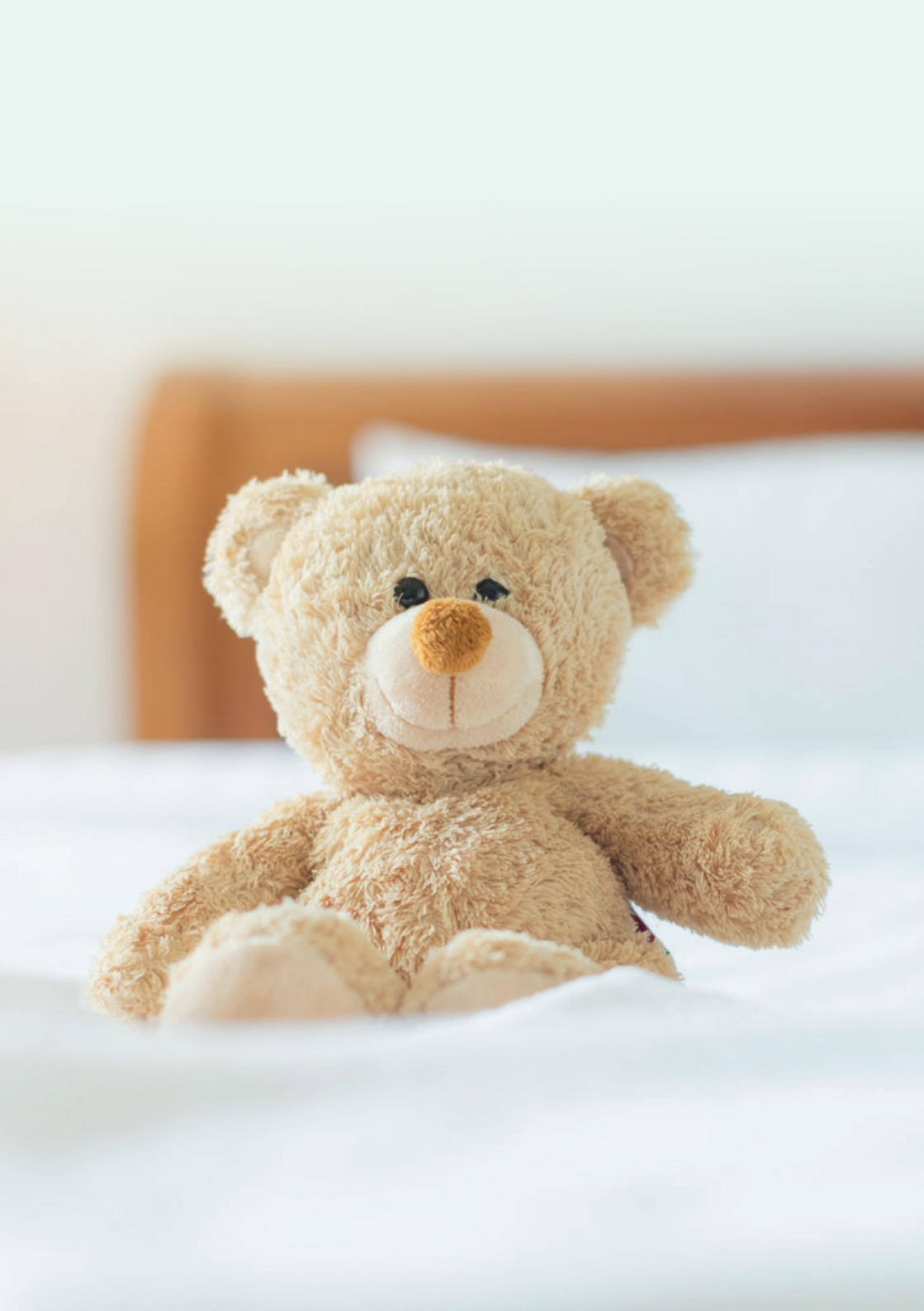
Diphtheria

Pathogen	Bacteria *Corynebacterium diphtheriae*
Transmission	Droplet infection or direct contact
Clinical symptoms	Sore throat, fever up to 39 °C, swelling of the neck lymph nodes, paralysis of the soft palate, formation of coatings adhering to the roof of the mouth and throat down to the larynx. Croup cough with laryngeal diphtheria (especially in small children). Complications: choking, heart failure, paralysis of the head, face, trunk and breathing muscles
Vaccination	Combination vaccine; basic immunisation during infancy and early childhood, booster vaccination in adolescence as well as every ten years during adulthood

Whooping cough

(Pertussis)

Pathogen	(Primary) Bacteria *Bordetella pertussis*
Transmission	Droplet infection
Clinical symptoms	Lengthy illness (6-7 weeks on average), flu-like symptoms, agonizing bouts of cough. Complications: pneumonia, inguinal hernias and fractured ribs or middle ear infection. High risk of complications in infants
Vaccination	Combination vaccine; basic immunisation during infancy and early childhood, booster vaccination in adolescence as well as during adulthood, especially for women of childbearing age and during pregnancy and people they are in contact with



Haemophilus influenzae type b

(Hib)

Pathogen	Bacteria *Haemophilus influenzae* type b
Transmission	Droplet infection, but also via contact with infectious respiratory tract secretions
Clinical symptoms	It can lead to meningeal, epiglottal or lung inflammation as well as blood poisoning (sepsis) with severe courses of the disease. Infants in their first year of life are especially at risk of deadly complications.
Vaccination	Single or combination vaccine; basic immunisation during infancy and early childhood. No booster vaccinations are necessary. Vaccination of people with certain underlying health conditions

Polio

(Poliomyelitis; polio for short)

Pathogen	Polio virus
Transmission	The virus is excreted in the stool and primarily transferred via smear infection, but also via droplet infection or contaminated drinking water.
Clinical symptoms	The disease runs its course without symptoms in approximately 95 % of infected people. Approx. 5 % suffer from fever as well as a sore throat and headache. In a few cases, flaccid paralysis of the arm and leg muscles, and partly of the speaking, swallowing or breathing muscles, occurs. Complications: lasting paralysis, muscle wasting, decreased bone growth as well as joint destruction
Vaccination	Combination vaccine; basic immunisation during infancy and early childhood, booster vaccination during adolescence. Vaccination of migrants, people traveling to at-risk countries as well as people in certain professions

Liver inflammation

(Hepatitis B)

Pathogen	Hepatitis B virus
Transmission	Mainly sexual contact or via other bodily fluids
Clinical symptoms	Initially flu-like symptoms, which may be accompanied by nausea and vomiting. One third of those sick have jaundice (yellow coloring of the skin). The illness can be especially chronic in small children. Complications: liver cirrhosis
Vaccination	Single or combination vaccine; basic immunisation during infancy and early childhood, which should be caught up during adolescence at the latest. Certain professions should receive the vaccination such as medical personal, people with an underlying health condition as well as people traveling to at-risk countries.

Pneumococci diseases

Pathogen	Bacteria *Streptococcus pneumoniae*
Transmission	Droplet infection
Clinical symptoms	Middle ear infection, sinus infection or pneumonia. In addition, meningeal inflammation and blood poisoning in the case of severe courses of the disease. Infants and small children in the first two years of life and the elderly as well as people with a weakened immune system and chronic diseases are especially at risk of severe infection.
Vaccination	Single vaccine; basic immunisation during infancy and early childhood. Vaccination of people over 60 years of age as well as people with underlying health conditions or in certain professions

Meningococci diseases

Pathogen	Bacteria *Neisseria meningitidis*
Transmission	Droplet infection or direct contact
Clinical symptoms	First, flu-like symptoms occur. Then, severe headaches, a high fever, nausea, sensitivity to light and neck stiffness suddenly appear. Afterward, it can lead to meningeal inflammation and/or bacterial blood poisoning (“sepsis”) in many cases. Complications: septic shock, developmental disorders, paralysis, cranial nerve paralysis, seizures and damage to the inner ear up to and including deafness
Vaccination	Single vaccine; basic immunisation during early childhood. Vaccination of people with certain underlying health conditions or at an increased risk of infection as well as people traveling to at-risk countries.

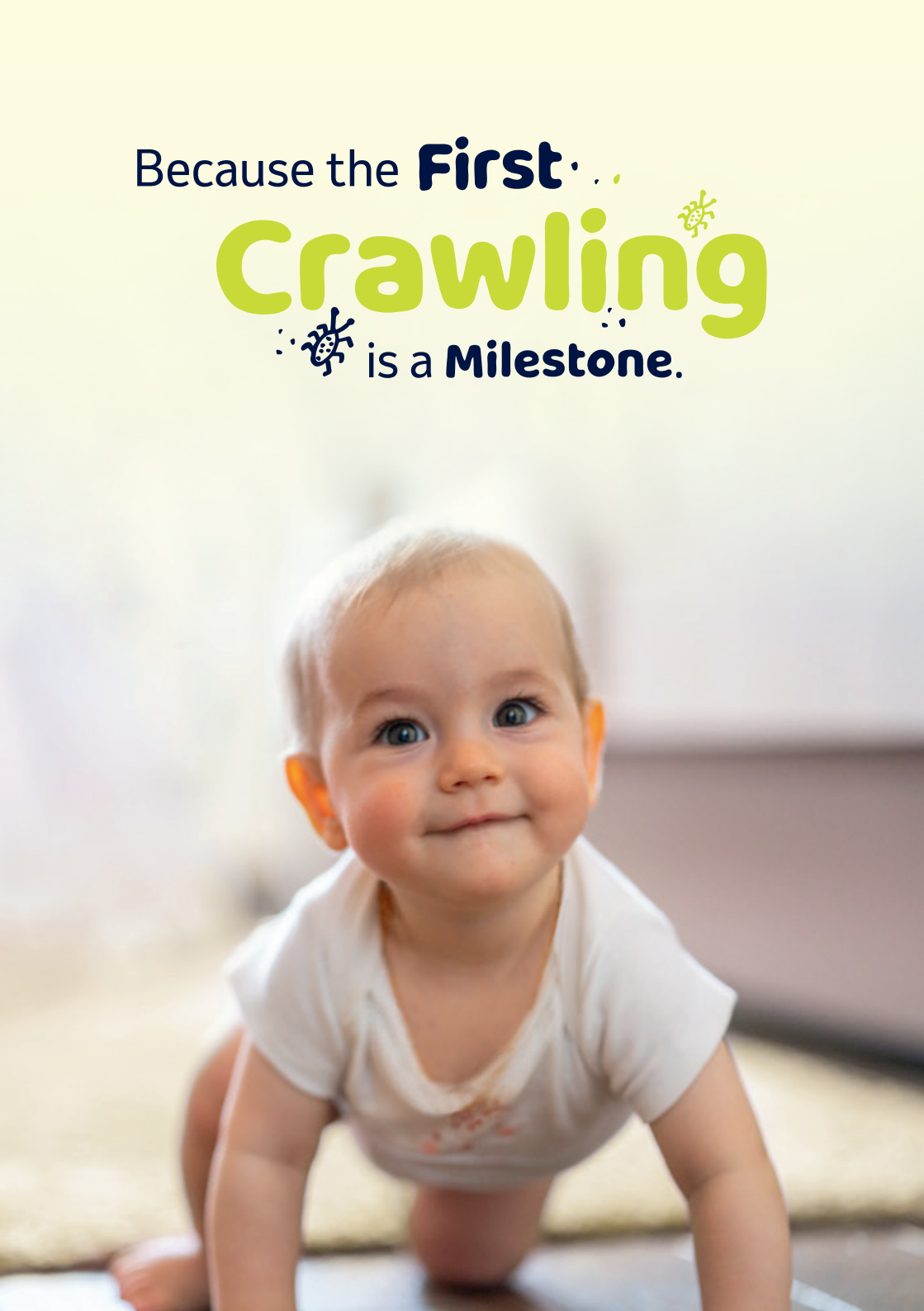
RSV infections

Pathogen	Respiratory syncytial virus
Transmission	Droplet infection, but also via contact with infectious respiratory tract secretions
Clinical symptoms	The symptoms range from a simple respiratory tract infection to a severe illness requiring ventilation. An infection can be asymptomatic, but an initial infection almost always gives rise to clear symptoms. They may be restricted to the upper airways, but the deep airways can also be affected, especially in infants (e.g. pneumonia).
Passive immunisation	Monoclonal RSV antibodies (mAbs): prophylactic treatment in newborns and infants depending on the month when they were born

Because the **First**

Crawling

is a **Milestone**.



Immunisation Schedule

Standard immunisations with vaccines and mAbs

Excerpt from the 2025 STIKO vaccination schedule on completed vaccinations and passive immunisation with monoclonal antibodies (mAbs) during the first year of life

	Age in weeks			Age in months						
Vaccination/passive immunisation	0	4	6	2	3	4	5–7	8–10	11*	12
	U2	**U3**		**U4**			**U5**		**U6**	
RSV	**Monoclonal antibodies (one-time dose)[a]**									
Rotavirus	**G1[b]**				**G2**	**(G3)**				
Tetanus[c]				**G1**		**G2**			**G3[e]**	
Diphtheria[c]				**G1**		**G2**			**G3[e]**	
Pertussis[c]				**G1**		**G2**			**G3[e]**	
***Haemophilus influenzae* Type b[c]**				**G1**		**G2**			**G3[e]**	
Poliomyelitis[c]				**G1**		**G2**			**G3[e]**	
Hepatitis B[c]				**G1**		**G2**			**G3[e]**	
Pneumococci[c]				**G1**		**G2**			**G3[e]**	
Meningococcus B[d]				**G1**		**G2**				**G3[d]**
Meningococcal C										**G1**

Recommended time frame for the administration of mAbs

Recommended vaccination date

Catch-up period for primary immunisation and administration of mAbs

G: Basic immunisation (in up to 3 partial vaccinations G1-G3); **mAbs:** monoclonal antibodies

Table modified by MSD after Robert Koch-Institut (RKI). Recommendations of the Standing Committee on Vaccination (STIKO) of RKI. Status as of: January2025. Epid Bull 2025;4:1–75.

Explanations:

a Individuals born between April and September should receive Nirsevimab in the autumn prior to the start of their 1st RSV season. Newborns of any gestational age who were born during the RSV season (mostly between October and March) should receive Nirsevimab as soon as possible after birth, ideally upon discharge from the maternity unit or at the U2 examination (3rd–10th day of life).
b First vaccine dose as early as the age of 6 weeks; depending on the vaccine used 2 or 3 vaccine doses at an interval of at least 4 weeks.
c Premature infants: Additional vaccine dose at the age of 3 months, i.e. a total of 4 vaccine doses.
d 3 doses at the age of 2 to 23 months; from the age of 24 months, the vaccination series consists of 2 doses.
e Minimum interval from the previous dose: 6 months.
***** Vaccinations can be spread over multiple vaccination appointments.

Additional information on MSD and the subject of vaccinations:

www.msd-gesundheit.de/impfungen/

www.infektionsschutz.de

www.msd.de

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