Bed sharing und SIDS

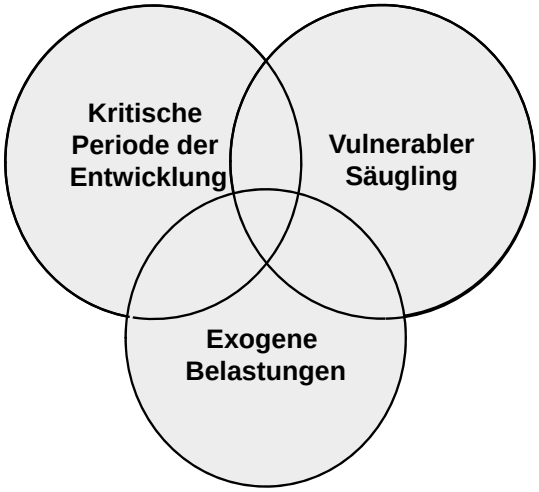
Daniela Karall, MD, IBCLC
Medizinische Universität Innsbruck, Klinik für Pädiatrie I,
(Angeborene Stoffwechselstörungen)
daniela.karall@i-med.ac.at

The baby died. No one knows exactly why.

"Der plötzliche Tod eines jeden Säuglings, der aufgrund der Anamnese unerwartet ist (klinisches Kriterium) und bei dem eine gründliche Obduktion keine adäquate Todesursache erkennen läßt (pathologisches Kriterium)."

(Beckwith JB, Seattle 1969) (Krous H et al, Pediatrics 2004)

Pathogenese



= Triple Risk Modell

Triple Risk Modell

<u>Nicht beeinflussbar:</u>
Kind < 3 Monate
Mutter < 20 Jahre
Frühgeburt
Mehrlinge
Sozioökonomischer Status
Kalte Jahreszeit
Akute Erkrankung / Infekte

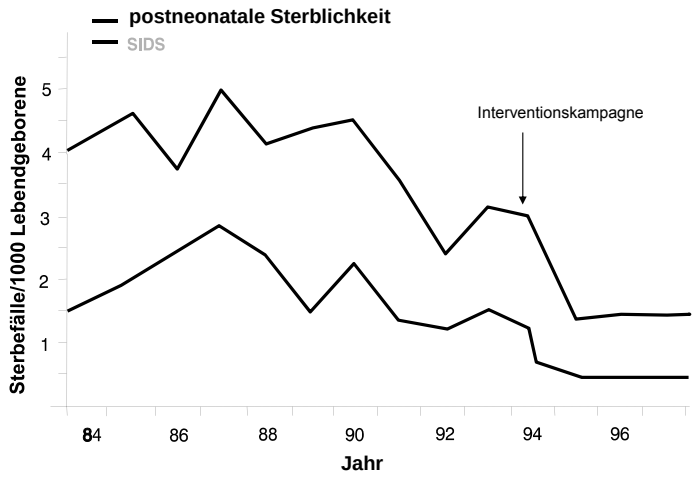
<u>Beeinflussbar:</u>
Bauchlage
Rauchen
Alkohol / Drogen
Raumtemperatur
Art des Bettes
Art der Bedeckung
….

Bedeutung von SIDS

SIDS ist eine der häufigsten Ursachen der Säuglings-sterblichkeit in den industrialisierten Ländern.

Die Inzidenz liegt bei 1 - 3 / 1000 Lebendgeborenen.

Präventionsprogramme senken sie unter 1 / 1000 Lebendgeborene (in Tirol derzeit unter 0,3 ‰) .



SIDS und postneonatale Sterbefälle / 1000 Lebendgeborene in Tirol (1984-1999)

SIDS-Inzidenz in Österreich

Stand: 2015-04-20
Statistik Austria

Jahr	Anzahl	Inzidenz
1994	78	0,84
1995	57	0,64
1996	53	0,60
1997	49	0,58
1998	44	0,54
1999	35	0,45
2000	39	0,50
2001	23	0,30
2002	32	0,41
2003	26	0,34
2004	16	0,20
2005	30	0,38
2006	25	0,32
2007	22	0,29
2008	22	0,28
2009	19	0,25
2010	24	0,30
2011	15	0,19
2012	14	0,17
2013	13	0,17

Statistisch keine signifikante Änderung in den letzten Jahren.

1984-94	gemittelt	14 / Jahr
1996	3	
1997	5	0.84
1998	5	
1999	2	
2000	3	0.51
2001	1	
2002	4	
2003	0	
2004	2	0.20
2005	2	0.39
2006	1	0.32
2007	1	0.29
2008	2	0.28
2009	1	
2010	0	
2011	1	
2012	2	0.14
2013	2	
2014	1	

SIDS-Inzidenz in Tirol
(Stand: 2015-04-20)

SIDS Risikofaktoren

- European Concerted Action on SIDS (ECAS-Studie)

Risikofaktor	*Multivariate OR (95% CI)*
Bauchlage	13.1 (8.51-20.2)
Sek. Bauchlage	45.4 (23.4-87.9)
Kopf bedeckt	12.5 (6.47-24.1)
Mütterliches Rauchen UND gemeinsames Bett	17.7 (10.3-30.3)
Geburtsgewicht <2000g	4.83 (2.36-9.88)
Mütterliches Alter ≤18 J	11.0 (5.38-22.4)

OR = odds ratio; CI = confidence interval

Carpenter RG et al. Sudden unexplained death in 20 regions in Europe. Lancet 2004

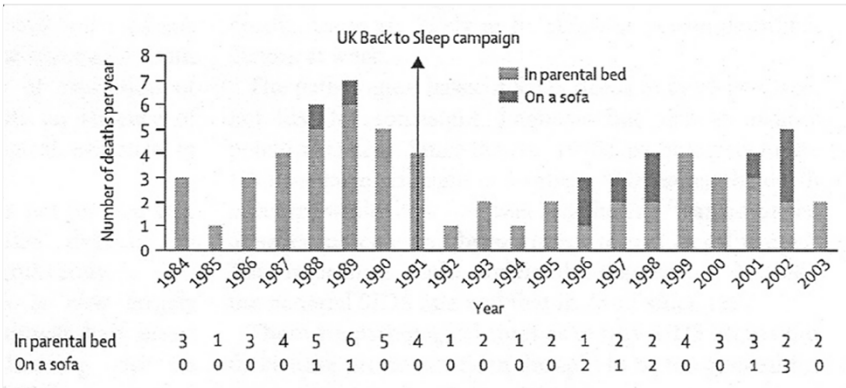
Epidemiologische Veränderungen SIDS (UK)

Risikofaktor SIDS-Kinder	Prävalenz % 1984-1988	Prävalenz % 1999-2003	P-Wert
Co-sleeping	12	50 *	<0.0001
Sozioökon. Status niedrig	47	74	0.003
Rauchen in SS	57	86	0.0004
Frühgeborene	12	34	0.0001

Blair P et al. Major epidemiological changes in SIDS. Lancet 2006;367:314-19

Epidemiologische Veränderungen SIDS (UK)

Co-sleeping SIDS deaths in Avon during 1984-2003



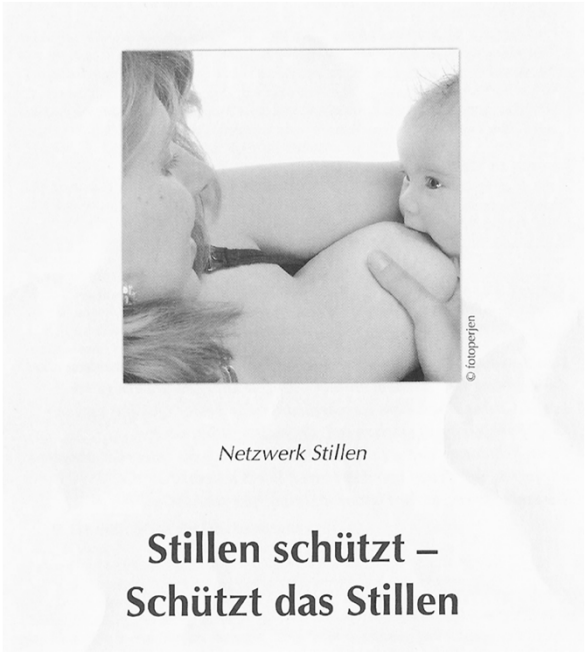
In parental bed	3	1	3	4	5	6	5	4	1	2	1	2	1	2	2	4	3	3	2	2
On a sofa	0	0	0	0	1	1	0	0	0	0	0	0	2	1	2	0	0	1	3	0

Blair P et al. Major epidemiological changes in SIDS. Lancet 2006;367:314-19

Empfehlungen American Academy of Pediatrics

(1) Put infants on their backs to sleep
(2) Use a firm sleep surface
(3) Keep soft objects and loose bedding out of the crib
(4) Do not smoke during pregnancy and avoid exposure of infants to second hand tobacco smoke
→ (5) A "separate but proximate" sleep environment is recommended. Use a crib, in the parents' bedroom, but avoid bedsharing during sleep, and avoid sleeping on a couch or armchair with an infant
(6) Consider offering a pacifier at nap time and bedtime
(7) Avoid overheating
(8) Avoid commercial devices marketed to reduce the risk of SIDS
(9) Do not use home monitors as a strategy to reduce the risk of SIDS
(10) Avoid the development of positional plagiocephaly ("tummy time" when awake; vary position of infant's head)
(11) Continue the "Back to Sleep" campaign. Intensify public education for secondary caregivers (e.g. child minders, baby sitters, grandparents, foster parents)

Kattwinkel J et al. The changing concept of SIDS. Pediatrics 2005; 116: 1245-1255



SIDS - Kindliche Einflußfaktoren:

		Odds ratio	mit 95% CI
	männliches Geschlecht	1,5	(1,1;1,9)
→	Flaschenernährung[c]	4,5	(1,4;14,7)
	Schlafen in Bauchlage	9,0	(2,8;28,5)
	Schlafen in Seitenlage	1,8	(1,0;3,3)
→	Schlafen im Bett der Eltern (ganze Nacht)	4,4	(1,6;12,0)
→	Schlafen im Bett der Eltern (Mutter Nichtraucherin)	2,6	(0,8;8,2)
→	Schlafen im Bett der Eltern (Mutter Raucherin)	17,6	(7,6;40.7)
	Schlafen im Raum der Eltern (im eigenen Bett)	0,3	(0,2;0,4)
	Kopf durch Bettzeug bedeckt	21,6	(6,2;75,0)
	Schlafen mit Schnuller	0,4	(0,2;0,7)
	Schlafen unter dicker Bettdecke	3,5	(1,7;7,1)

Brooke 1997, Daltveit 1997, Fleming 1996, Mitchell 1997, Schellscheidt 1997

Empfehlungen American Academy of Pediatrics

TABLE 1 Summary and Strength of Recommendations

Level A recommendations
- Back to sleep for every sleep
- Use a firm sleep surface
- → Room-sharing without bed-sharing is recommended
- Keep soft objects and loose bedding out of the crib
- Pregnant women should receive regular prenatal care
- Avoid smoke exposure during pregnancy and after birth
- Avoid alcohol and illicit drug use during pregnancy and after birth
- → Breastfeeding is recommended
- Consider offering a pacifier at nap time and bedtime
- Avoid overheating
- Do not use home cardiorespiratory monitors as a strategy for reducing the risk of SIDS
- Expand the national campaign to reduce the risks of SIDS to include a major focus on the safe sleep environment and ways to reduce the risks of all sleep-related infant deaths, including SIDS, suffocation, and other accidental deaths; pediatricians, family physicians, and other primary care providers should actively participate in this campaign

Level B recommendations
- Infants should be immunized in accordance with recommendations of the AAP and Centers for Disease Control and Prevention
- Avoid commercial devices marketed to reduce the risk of SIDS
- Supervised, awake tummy time is recommended to facilitate development and to minimize development of positional plagiocephaly

Level C recommendations
- Health care professionals, staff in newborn nurseries and NICUs, and child care providers should endorse the SIDS risk-reduction recommendations from birth
- Media and manufacturers should follow safe-sleep guidelines in their messaging and advertising
- Continue research and surveillance on the risk factors, causes, and pathophysiological mechanisms of SIDS and other sleep-related infant deaths, with the ultimate goal of eliminating these deaths entirely

SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment
Task Force on Sudden Infant Death Syndrome
Pediatrics 2011;128;1030; originally published online October 17, 2011;
DOI: 10.1542/peds.2011-2284

Wo? Wie?

In zwei Dritteln aller menschlichen Kulturen ist das Familienbett die Regel,
auch in Industrienationen wie Japan. Getrenntes Schlafen erniedrigt die Stilldauer.
Stillen wirkt prophylaktisch bezüglich SIDS.

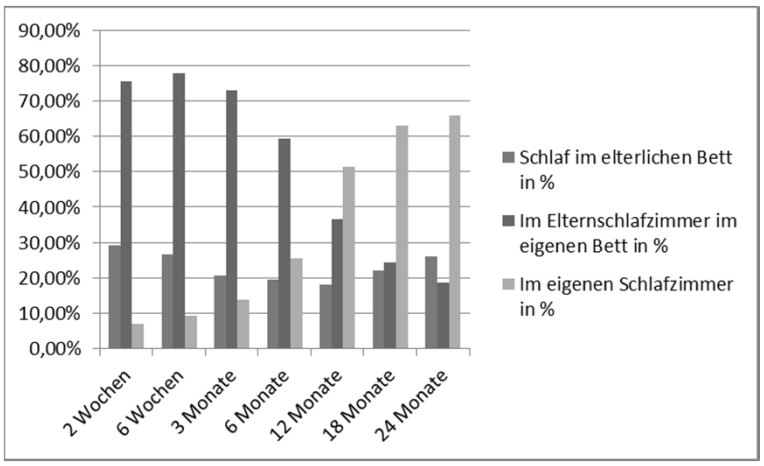
Co-sleeping – Prävalenz in Mitteleuropa

- England ~ 50 % (20% regelmässig im 1. LJ)
- mit drei Monaten

Irland	21 %
Deutschland	23 %
Italien	24 %
Schottland	25 %
Österreich	30 %
Dänemark	39 %
Schweden	65 %

Blair PS, Jornal de pediatria 2008 – Putting co-sleeping into perspective
Nelson EA, Early Hum Dev 2001 – International child care practices study

Co-sleeping – Prävalenz in Tirol



Studie zur Ernährung des Säuglings und Kleinkindes in den ersten beiden Lebensjahren in Tirol

Positive Auswirkungen des gemeinsamen Schlafens auf Stillen und SIDS

- gesteigerte Stillrate und Stilldauer
- Kind liegt nicht in Bauchlage
- Seitenlage ist stabil, weil Mutter ein Nest bildet
- keine Sturzgefahr
- gestillte Kinder sind leichter erweckbar
- gestillte Kinder haben weniger Infekte

Breastfeeding and Reduced Risk of Sudden Infant Death Syndrome: A Meta-analysis

Fern R. Hauck, John M. D. Thompson, Kawai O. Tanabe, Rachel Y. Moon and Mechtild M. Vennemann

CONCLUSIONS: Breastfeeding is protective against SIDS, and this effect is stronger when breastfeeding is exclusive. The recommendation to breastfeed infants should be included with other SIDS risk-reduction messages to both reduce the risk of SIDS and promote breastfeeding for its many other infant and maternal health benefits. *Pediatrics* 2011; 128:000

SIDS Inzidenz

0,3 Promille = 3 / 10.000

Cave mit Empfehlungen,

die evtl. 9.997 schaden!

Co-sleeping nicht verbieten, sondern sicher machen!

Table 2 | Multivariable logistic regression model comparing SIDS (sudden infant death syndrome) infants with random control infants. Values are numbers (percentages) unless stated otherwise

Risk factors for SIDS	SIDS infants	Random control infants	Multivariable odds ratio (95% CI)*	P value
Mother consumed >2 units† of alcohol in past 24 hours	19/77 (25)	2/87 (2)	41.62 (5.45 to 318.09)	0.0003
Infant shared parental bed or sofa for last sleep‡	43/79 (54)	18/87 (21)	21.77 (3.79 to 125.00)	0.001
Infant slept in room without parent for last sleep‡	21/79 (27)	21/87 (24)	21.34 (2.99 to 152.56)	0.002
Mother smoked during pregnancy	47/79 (59)	12/87 (14)	13.36 (3.07 to 58.83)	0.001
Infant swaddled for last sleep	19/78 (24)	5/87 (6)	31.06 (4.21 to 228.94)	0.001
Mother had no educational qualifications	28/80 (35)	12/87 (14)	15.55 (2.59 to 93.50)	0.003
Infant found prone for last sleep	23/79 (29)	9/86 (10)	6.61 (1.57 to 27.88)	0.010
Gestational age of infant ≤37 weeks	21/80 (26)	4/87 (5)	11.52 (1.64 to 80.82)	0.014
>3 live births (including this birth)	18/80 (23)	5/87 (6)	11.64 (1.57 to 86.05)	0.016
Infant (head or whole body) placed on pillow for last sleep	16/78 (21)	3/87 (3)	10.59 (1.43 to 78.39)	0.021
Infant's health in last 24 hours fair or poor	22/79 (28)	5/87 (6)	8.06 (1.11 to 58.42)	0.039
Maternal age at time of interview ≤21 years	24/80 (30)	15/87 (17)	—	0.053
Parental social class (on basis of occupation§) IV, V, or never employed	38/78 (49)	18/87 (21)	—	0.15
Housing not owned or mortgaged	60/76 (79)	37/87 (43)	—	0.17
Infant admitted to neonatal intensive care unit at birth	15/80 (19)	7/87 (8)	—	0.23
Parental use of narcotics in last 24 hours	11/78 (14)	5/87 (6)	—	0.28
Used infant sleeping bag for last sleep	2/77 (3)	11/86 (13)	—	0.42
Infant appeared ill in last 24 hours	26/80 (33)	6/87 (7)	—	0.64
Infant birth weight <2500 g	13/80 (16)	2/87 (2)	—	0.66
Used adult or infant duvet for last sleep	24/76 (32)	10/86 (12)	—	0.82
No waged income for household	28/77 (36)	15/87 (17)	—	0.89

Blair PS, BMJ 2009 - Hazardous cosleeping environments and risk factors amenable to change

Co-sleeping nicht verbieten, sondern sicher machen!

Many of the deaths in this case-control study of SIDS in the south west of England occurred while the infants coslept in a **hazardous environment**. The major influences on risk of SIDS, regardless of markers for socio-economic deprivation, are **amenable to change** and **specific advice** needs to be given, particularly on the use of **alcohol or drugs** if cosleeping with an infant and the risk of cosleeping on a **sofa**.

Blair PS, BMJ 2009 - Hazardous cosleeping environments and risk factors amenable to change

Social Science & Medicine 79 (2013) 84–91

Contents lists available at SciVerse ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Review

Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location – Moving the discussion forward

Helen L. Ball*, Lane E. Volpe

Parent-Infant Sleep Lab, Department of Anthropology & Wolfson Research Institute, Durham University, Dawson Building, South Road, Durham DH1 3LE, UK

Review

Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location – Moving the discussion forward

Helen L. Ball*, Lane E. Volpe

Parent-Infant Sleep Lab, Department of Anthropology & Wolfson Research Institute, Durham University, Dawson Building, South Road, Durham DH1 3LE, UK

The notion that infant sleep environments are ‘good’ or ‘bad’ and that parents who receive appropriate instruction will modify their infant-care habits has been fundamental to SIDS reduction campaigns. However infant sleep location recommendations have failed to emulate the previously successful infant sleep position campaigns that dramatically reduced infant deaths. In this paper we discuss the conflict between ‘safeguarding’ and ‘well-being’, contradictory messages, and rejected advice regarding infant sleep location. Following a summary of the relevant background literature we argue **that bed-sharing is not a modifiable infant-care practice that can be influenced by risk-education and simple recommendations.** We propose that differentiation between infant-care practices, parental behaviors, and cultural beliefs would assist in the development of risk-reduction interventions**. Failure to recognize the importance of infant sleep location** to ethnic and sub-cultural identity, has led to inappropriate and ineffective risk-reduction messages that are rejected by their target populations. Furthermore transfer of recommendations from one geographic or cultural setting to another without evaluation of variation within and between the origin and destination populations has led to inappropriate targeting of groups or behaviors.

Review

Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location – Moving the discussion forward

Helen L. Ball*, Lane E. Volpe

Parent-Infant Sleep Lab, Department of Anthropology & Wolfson Research Institute, Durham University, Dawson Building, South Road, Durham DH1 3LE, UK

► Bed-sharing choices often reflect strongly-held, non-modifiable, cultural or personal views about infancy and parenting.
► SIDS reduction advice treats infant sleep location as a modifiable risk that can be altered by information provision.
► Bed-sharing recommendations are inappropriately transferred from one setting to another without consideration of context.
► Detailed research on infant care, and interventions that accommodate cultural and personal values, are needed to move forward.

Review

Sudden Infant Death Syndrome (SIDS) risk reduction and infant sleep location – Moving the discussion forward

Helen L. Ball*, Lane E. Volpe

Parent-Infant Sleep Lab, Department of Anthropology & Wolfson Research Institute, Durham University, Dawson Building, South Road, Durham DH1 3LE, UK

► Bed-sharing Entscheidungen spiegeln inmanente, nicht veränderbare kulturelle oder persönliche Ansichten über Kindheit und Elternschaft wider.
► SIDS Reduktion-Ratschläge betrachten den Schlafplatz von Kindern als einen durch Information veränderbaren Risikofaktor.
► Bed-sharing Empfehlungen werden von einem Setting in ein anderes übertragen, ohne Berücksichtigung des Kontextes.
► Wir benötigen daher Forschungsansätze über Säuglingspflege, die persönliche und kulturelle Werte mit berücksichtigen.

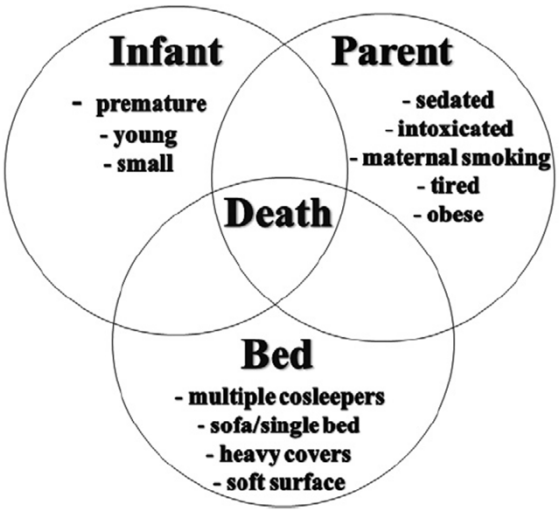
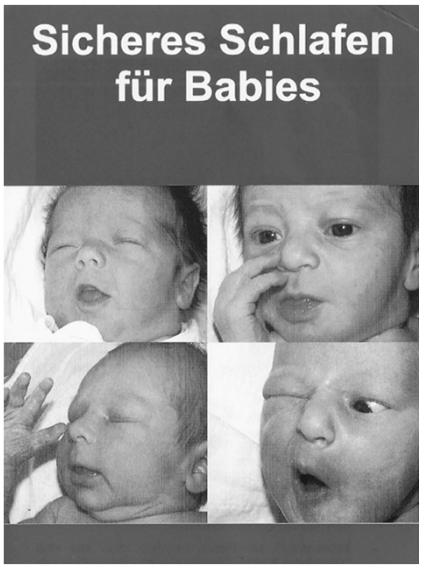


Fig. 1 An adaptation of the 'triple risk' model to demonstrate the inter-relationships of risk factors for infant death in a shared sleeping situation.

Byard RW, Triple risk model for shared sleeping, J Paediatr Child Health 2011



Ich mag Rückenlage

Ich brauche Nähe ....

Some like it hot - ich nicht

Ich stehe auf rauchfrei

Email: sicheres-schlafen@meduniwien.ac.at

Zusammenfassung

- Rückenlage
- Nicht rauchen / kein (wenig) Alkohol
- normale Raumtemperatur (18-20°C)
- Schlafsack statt Bettdecke
- Stillen
- Kind im Zimmer / Bett der Eltern ist o.k.
- Schnuller (fraglich)

Infant sleep information source

www.isisonline.org.uk

Vielen Dank!