SIDS (Sudden Infant Death Syndrome):

Its Highest Occurrence Risk in Initial Period of Nursery Day Care —How to Prevent and React to SIDS Problems

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### **Preface**

In 1995, SIDS (Sudden Infant Death Syndrome) \*\* struck my day care center for infants, and we lost a precious life. I felt sincerely sorry for the death, very sad about the accident and ashamed of myself, for failing to fulfill my professional responsibility, which is to ensure that the children we look after get back to their families in as healthy and happy a condition as they were in when they came to our center.

Having an indescribable regret for the loss of that precious life and feeling sincerely sorry for the infant, I almost lost, for a while, my energy to live. Later, however, I came to deeply realize that what I should do for the dead infant is to give to all nurseries a wide range of correct knowledge and information on how to prevent SIDS and to help them prevent SIDS accidents from happening to their children. Then, in 1996, I officially started working for SIDS prevention.

### My SIDS Prevention Instruction Activities

In 1997, soon after my activities for SIDS prevention were featured in the newspapers, I received a storm of calls and/or inquiries from a great number of people who worked for infants and small children including nursery teachers, nurses and principals of public or private authorized and unauthorized kindergartens nationwide. They asked me to instruct them how to prevent SIDS from happening to children they look after, saying "SIDS is a horrifying disease for infants, because its cause has not been clearly identified and its occurrence cannot be predicted. But we want to protect our precious small lives from such a horrifying

disease."

At first, I tried to explain over the phone to each of the inquirers how to prevent SIDS from happening to children at their facilities and how to detect a child falling into apnea. However, I soon became frustrated, because it was very difficult to give the inquirers all the correct information merely through the phone. So I decided to urgently compile a set of information on SIDS prevention so that I would be able to send it to all the inquirers for their exact and better understanding. The references are currently available at "Information for Childcare Providers on Ways of Preventing SIDS" on the *Mommy Home Childcare Service <Toward the Prevention of SIDS> Website* (http://mommy-sids.com/english/index-e.html), and you are all recommended to check them for details.

## Child's Postures and SIDS-Occurring Situations

SIDS happens to children not only when they sleep on their stomach but even when they sleep on their side or back. Besides this, the disease does not accompany any clearly abnormal expressive or physical signs of children right before or after their apnea. So it is very difficult for nursery caregivers to detect any SIDS risk coming on to a child immediately after his apnea even if they take care of the child in the same room. Medical studies have revealed that SIDS can happen to a child even in a relatively short time after a shift in posture from sleeping on their back to stomach. In many cases, their caregivers come to notice his apnea in about 10 or 25 minutes after his posture shifts.

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\*\* SIDS is now one of the most common fatal infants diseases. It happens to babies, and sometimes even to one-year-old children, during their sleep even when looking very healthy. Its cause has not been clearly identified but several factors have been found to increase the risks of the SIDS occurring. The SIDS Prevention Campaign has been in operation since 1998 in Japan with big efforts made in its prevention.

# How to Prevent SIDS and How to Detect Apnea Quickly

When we detect a child falling into apnea, they have already slipped into a lower oxygen condition. Therefore, knowing preventative measures against SIDS is very important. One of the effective preventions to be conducted at a nursery school is to have children sleep face-up. In order to reduce SIDS risks, it is strongly

recommended to return their sleeping posture to face-up immediately after they shift their posture to lying face-down or on their sides.

In order to detect a child falling into apnea as swiftly as possible, daily use of a timer checking their breathing periodically is very helpful. The methodology is simple; just touch the body of each child. You can check their breathing and prevent SIDS, which may happen to them right after you check their breathing.

The standard shortest interval for the regular inspection of children who take a nap at a nursery organization is "Every Five Minutes," but this interval can vary depending on conditions such as "Use or Non-use of Check Sheet for Napping Children," "Number of Children" or "Size of the Room," etc. Therefore, you need to establish your own optimized interval between the inspections at your organization, which you can surely conduct without fail every day. (For details, See "Information for Childcare Providers on Ways of Preventing SIDS" on the *Mommy Home Childcare Service <Toward the Prevention of SIDS> Website*). The above activities help you not only prevent SIDS, but also a sudden accident from happening to children, and also help in early detection of any change in their physical condition.

### ALTE, Similar to SIDS in Occurrence Situations

There is another commonly seen disease, just like SIDS, happening to some children who take a nap at a nursery facility. It is called ALTE (Apparent Life Threatening Event). Since ALTE is similar to SIDS, "how to prevent ALTE" and "how to make actions against ALTE" are the same as in case of SIDS. However, children who once suffered from ALTE may suffer from very serious aftereffects even though caregiver(s) noticed their apnea even within a few minutes after it happened. Regretfully there are only a few cases of a child who once fell into ALTE recovering well without any aftereffect.

### Let's Do Emergent First-Aid that we won't regret

SIDS may happen to a child even though we proactively take preventive measures, so, we also have to learn how to do first-aid. For that purpose, it's very important to learn cardiopulmonary resuscitation to save the child until the rescue squad arrives at your nursery.

However, we tend to forget what we have learned as time goes by. Therefore, it is

helpful to review First Aid Procedures utilizing DVDs or Videos as well as periodical lectures.

Please also remember that if you don't know the procedural details, it is possible to get over the phone verbal instruction about how to deal with the situation when you make an emergency call.

Reference: "Society of Learning How to Make First-Aid Rescue for Infants" has been promoting to spread a DVD which contains the knowledge and information about first-aid rescuing actions and preventative methods for infants/adults in case of emergency.

# Investigation on SIDS Occurrence in the Beginning Period after Children join Nursery Organizations:

In 2004, The American Academy of Pediatrics (AAP) released the result of their investigation on SIDS cases, which happened in USA in a year. Out of all the SIDS cases (2,500) in the USA, 500 happened when children were looked after by caregivers other than their own parents. One third of those cases happened in the first week children started at nursery organizations, and 50% of the cases happened on the first day they were taken to and looked after at nursery organizations. I reported this fact to Dr. Hiroshi Nishida, a professor emeritus at Tokyo Women's Medical University.

Then, Dr. Nishida requested me to make a domestic survey of SIDS cases in Japan and report it at the 2006 SIDS international Conference with the data released by AAP. Mr. Ito, president of Master Works Co., Ltd., and I investigated 31 cases of SIDS, which happened at nursery organizations in the past 15 years by analytical interviews. As a result, we found out that many SIDS cases happened on the first day or within one week after children were taken to the nursing facility. The results of our domestic investigation are very similar to that of the AAP's investigation, and we published a thesis on SIDS in *Journal of Child Health* in 2006 (\*\*1).

61% of the 31 cases were children sleeping face-down when they were detected to have suffered from SIDS. This shows that the risk of SIDS is very high when children sleep face-down. On the other hand, 35% of the cases happened when children sleeping on their back. Therefore, we firmly realized the significance of regular breathing inspection of infants and concluded that caregivers must compulsorily check their breathing regularly during their nap, no matter what posture they are in at the time.

We also found that 67% of children who suffered from SIDS were not feeling well on the day of SIDS occurrence. The contents of the poor physical health felt by the children were within the tolerant level and caretakers were paying attention to those children when SIDS happened.

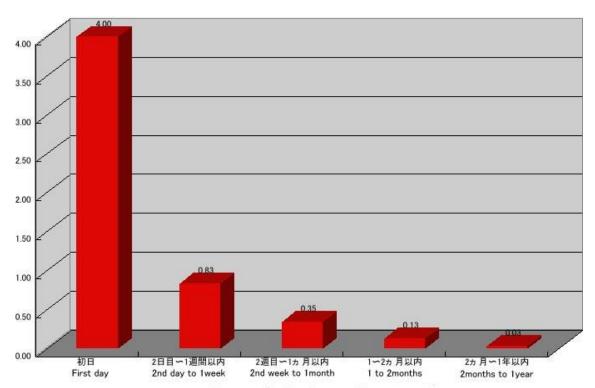


Figure 1: Risk per Day

Chart 1 SIDS Occurrence Risk per Day

Chart 1: SIDS Occurrence Risk is the highest within a month after children started attending a nursery organization. Especially, the risk is the highest on the first day followed by from the '2<sup>nd</sup> day to 1 week.' We also found several cases of ALTE happening to children, though the data for ALTE is not included in the chart. Just like SIDS, most of the ALTE cases happened within a month after children started attending nursery facilities.

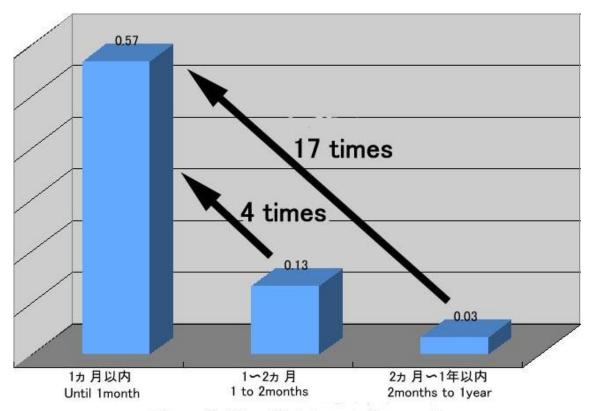


Figure 2: The Risk Level Comparison

Chart 2 Comparison in SIDS Occurrence Risk Level per Day

Chart 2: As shown in this chart, SIDS Occurrence Risk Level for only the first month after children started coming to a nursery facility is four times higher than that of the second month, and is 17 times higher than that of between the second and the 12<sup>th</sup> month. This data shows that a certain type of stress happens to the children immediately and/or after they are subject to the change in their surroundings and this stress can be main factor for the occurrence of SIDS.

## SIDS Occurrence Risks caused by Change in Children's Surroundings

Based on the domestic investigation and our activities, SIDS occurrence risks caused by changes in infants' surroundings can be regarded as important as the three major SIDS risks noticed at nursery facilities.

In the United States, the number of SIDS cases was greatly reduced by the nationwide SIDS prevention campaign, but the number of SIDS cases happening to children while they are staying at nursery facilities hasn't been reduced. This has become a major problem in the States.

Dr. Sadao Yamanami at Kawaguchi Municipal Medical & Health Center (Saitama, Japan) contributed a paper titled "SIDS and the Nursing Environment" (**※2**) to *Mother & Children Health Information* (Vol.53), featuring SIDS published in 2006, which was written based on a paper in U.S.

"SIDS tends to happen more to children when they are at a nursery organization or under the care of caregivers than when they are home with their parents. According to the results of investigations by Moon, et al, there were no significant differences between children's houses and their nursery organizations in terms of frequency of infants' face-down/sideways-laying posture, use of improper bedclothes, or other variances. Therefore, there should be some other factors which are responsible for SIDS occurrence."

"Other factors," mentioned in the above should be the stress caused by any changes in children's surroundings right after they start coming to nursery organizations. I came to believe so based on the investigation result in the U.S.A. and our domestic one.

## Instruction Adopted in Nursing Principles and Warning by Dr. Nishida

In 2008, the Ministry of Health, Labor and Welfare published "Nursing Principles at Nursery Organizations" containing the chapter "Infant observation must be performed very carefully, especially in the initial period of nursery", referring to our theses. Soon after this publication, an article regarding the SIDS Occurrence risks in the initial period of nursery was published in a newspaper in May. This article featured the comment of Mr. Nishida on the issue that changes in infants' environments can raise SIDS risks. Let me introduce part of it.

"Recent investigations and studies found out that changes in infants' surroundings are responsible for increasing the risks of SIDS occurrence. Nowadays, with many mothers working outside for a living, the use of nursery organizations should not be blamed. What all of us who are involved in nursery must recognize is that the risk of SIDS is the highest in the first several days and special care is very essential during that period."

Information on the highest risks of SIDS occurrence in the initial period of nursery has not notified to all the nursery organizations across the country. Therefore, I strongly hope from the bottom of my heart that such information and knowledge as well as the warning by Dr. Nishida will be fully spread to every person responsible for childcare all over Japan.

### Consultation

In cases when a child under care at your facility is sent to a hospital due to apnea, you will be suddenly under huge pressure to make quick judgments when dealing with the family of the child, the media, parents of other children in the facility and other related people. Your initial response to them could influence the consultation with the child's family, therefore, you need to be very careful. Plus, the fact that the causes of SIDS occurrence have not been clearly identified yet makes it more difficult for you to have a good consultation with the child's family.

Especially if a child suffers from SIDS in the initial days after he/she just joined your facility, you may not have a well-established, trusting relationship with their family, and so you are tasked with very severe consultations with the family. This same situation should be expected for ALTE occurrence as well.

I myself have given over 60 cases of consultation related to SIDS occurrence from professional nursery caregivers and families. From my experiences, I really feel that the earlier I receive your consultation on problems after SIDS occurrence, the better I may help both sides to effectively consult with each other to solve the problem. Therefore, when your nursery organization or others nearby has a case of SIDS or ALTE case, please contact me at the e-mail address provided on the website indicated at the end of the article.

### **Epilogue**

Through this paper, I have introduced to you information on SIDS, which could happen at your nursery facilities. Some of you may feel scared but what is really scary is that you take care of children in your routine without knowing about SIDS. I would like you to start SIDS prevention from today to protect precious lives before tragedy happens at your daycare facility. In conclusion, I would like to extend my sincere gratitude to all the nursery related people who have kindly helped me with

my SIDS investigation by understanding my desire "not to lose any infants' lives and not to make anyone feel sad over the loss of such lives".

## — [Reference] -

(※1) Thesis adopted in Journal of Child Health:

"The Correlation between SIDS Risk Factors and the Initial Stress of Being Looked After at a Daycare Facility"

Kazuo ITO (Master Works Co, Ltd.)

Noriko NAKAMURA (Mommy Childcare Service for SIDS Prevention)

\*This thesis is available at the following website:

http://www.ne.jp/asahi/master/lsfa/PDF/Ito Nakamura 060916 EN G.pdf

(※2) Sadao Yamanami, SIDS and Nursing Environment Mother & Children Health Information, Vol.53, p16 Featuring: Sudden Infant Death Syndrome: Its History and Current Situation

**Contact Information** 

Mommy Childcare Service

http://mommy-sids.com/english/index-e.html