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Back Injury Prevention for Childcare Providers

If you are taking care of infants and toddlers, you need to take care of your back. The U.S. Department of Labor found that the injury history for childcare providers is similar to workers in industrial settings. According to the Bureau of Labor Statistics (BLS), childcare workers accrued over 1,100 musculoskeletal lost-time injuries, with a median of 30 lost days away from work, in 2010.¹ Childcare workers have musculoskeletal injury rates comparable to industrial truck and tractor operators, construction equipment operators, and shipping and receiving clerks. In fact, childcare workers have an injury rate so high that national safety organizations track their rates of injury.² When you are on a military base, the last place you might expect to be injured is the child development center or a childcare provider's site. But injuries do occur—especially back injuries—and it is important that you know how to prevent them.



Overexertion, lifting, carrying, and straining cause back injuries in childcare workers.³ The key workday factors related to these injuries are the large difference in size between the childcare worker and the child, the position of the worker in relation to the child, and how often the worker is lifting.



Watch your “B.A.C.K.”⁴ and consider the “SPF”—size, position, and frequency—of each lift.

- **Size**
 - Challenge: The child is too large or too heavy.
 - Solution: Get help, re-plan the lift, or have the child assist (with steps or a platform).
- **Position**
 - Challenge: I have to bend over or reach over something to lift the child.
 - Solution: Bring the child close to you before lifting.
- **Frequency**
 - Challenge: I routinely lift a child.
 - Solution: Split up shifts or rotate duties if possible. Performing repetitive motions, especially in non-neutral postures increases injury risk even more.

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You Can Prevent Back Injury

- Before lifting, move your torso towards the child, but try to keep your back straight by bending forward from your hips, keeping your back straight. Tighten your core (back and abdominal) muscles and pull the child into your body. Continue to brace your back as you extend your back into a fully upright posture. Release the excess tension in your core muscle. Remember, to protect your back you need to tighten your core prior to lifting and release the excess muscle tension after returning to an upright posture.
- If possible, allow the child to cooperate and come up to your level (e.g., use steps for a toddler to climb up to the changing table). Several changing tables are available with steps that allow toddlers to assist themselves with climbing to the changing area.
- When teaching or working with children on the floor or toddlers in child-sized furniture, avoid stooping and sit supported on the floor.
- Follow the guidance on pages 3-5 for infant and toddler lifting techniques and exercises to keep your back healthy.
- Work with management to plan furniture purchases for you as well as the children. For example, chairs should be available with an adult-size seat pan and back support, but short legs.
- Reduce the size of heavy and wet laundry and other bags. Replace large, industrial-size garbage cans, with smaller trash cans to help reduce the size of the load.

Additional Resources

1. "Ergonomics for Childcare" posters at <http://www.dir.ca.gov/dosh/PubOrder.asp>
Scroll to "Ergonomics for Very Small Business Child Care Providers (Poster)."
2. "Health and Safety in the Child Care Setting: Prevention of Injuries—A Curriculum for the Training of Child Care Providers" (pp. 99-100) at
http://www.ucsfchildcarehealth.org/pdfs/Curricula/Prev_Injuries_052407.pdf
3. "Safe Lifting Techniques of Children," Pediatric Home Service Occupational Health Clinics for Ontario Workers, Inc. at <http://www.ohcow.on.ca/>; free video at:
<http://youtu.be/UjTxgxU7y50>

References

1. BLS, U.S. Department of Labor, report USDL-11-1612, *Nonfatal Occupational Injuries and Illness Requiring Days Away from Work, 2011*.
2. National Institute for Occupational Safety and Health, *Table 3, Number of Overexertion Injuries Involving Days Away From Work, Healthcare and Social Assistance Sector, 2008*.
<http://www.cdc.gov/niosh/programs/hcsa/table3.html>
3. McGrath, Belinda, "Identifying Health and Safety Risks for Childcare Workers," *Am. Assn OHN*, Aug. 2007
4. Pediatric Home Service, Occupational Health Clinics for Ontario Workers, Inc.
<http://www.ohcow.on.ca/>



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INFANT LIFTING TECHNIQUES

The Tripod Lift



1. Put one foot next to the child. Keep your back straight, push your buttocks out and slowly lower yourself down onto one knee. (For support as you lower yourself down, put one hand on a stool or on your thigh.)
2. Position the child close to the knee on the floor.
3. Slide the child from the knee on the floor to mid-thigh. Keep your head forward, your back straight, and your buttocks out, and lift the child onto the opposite thigh.
4. Put both of your forearms under the child with your palms facing upward and hug the child close to you.
5. Prepare for the lift: look forward.
6. Lift upwards following your head and shoulders. Hold the child close to your body. Lift by extending your legs with your back straight, your buttocks out, and breathe out as you lift.

The Pivot Technique

Use the pivot technique for lifts that require you to turn, such as lifting an infant to the diapering surface. Twisting while lifting can cause serious damage to the tissues of the back. Use the pivot technique to avoid twisting while lifting.

1. Properly lift the infant:
2. Hold the infant very close to your Body.
3. Turn your foot 90 degrees toward the way you want to turn.
4. Bring your other foot next to the leading foot. *Do not twist your body!*



TODDLER LIFTING TECHNIQUES

Working with toddlers requires constant interaction with little ones who are often very active, impulsive, and heavy. Manually lifting toddlers should be avoided whenever possible, but when necessary the guidelines describing proper lifting techniques should be followed.

- Avoid leaning downward from the waist to reach for children. Squat with feet shoulder width apart, keeping back straight and pushing your buttocks out to bring yourself as close to the child as possible, holding the child securely.
- Tighten stomach muscles and looking forward use thigh muscles to raise yourself breathing out as you lift.



Reduce the risk of back injury and provide excellent exercise and balance training for toddlers by allowing them to walk up the stairs to a changing table or playground slide, offering only necessary assistance.

Other ways to reduce risk of back injury when caring for toddlers:

- Store most frequently used and heaviest items in an easily accessible area and at waist height.
- Adjust diapering surfaces to waist height when steps to the surface are not available.
- Lower side of cribs to lift and lower child in and out of the crib.
- Use adult size chair seats with child size legs.
- Avoid bending down at the waist to interact with toddlers. Instead, assume a squatting or kneeling position.
- Squat or kneel on a kneepad.
- While sitting on the floor, when possible sit against a wall or furniture or a “husband” pillow to support the back.
- Use rolling carts or strollers to carry heavier loads and children.
- Instead of repetitive bending and stooping to clean up toys, etc., incorporate this into children’s clean up and have toddlers pick up the toys.



A U-shaped or banana table allows a caregiver to sit with the children in an adult-size seat with child-size legs.

Whether you're lifting infants or toddlers, these exercises can keep your back healthy.

Backward Stretch



1. Stand upright.
2. Place your feet a shoulder width apart.
3. Place your hands on your lower back.
4. Lean backward while keeping your neck straight.
5. Lean further back until you feel a slight stretch in your back.
6. Hold for a count of 5.
7. Return to the upright position.
8. Repeat 3 or 4 times.

Press Ups



1. Lie on your stomach with your legs straight and feet together.
2. Prop up your upper body with your forearms.
3. Push upward while keeping your pelvis on the floor.
4. Hold for 5 seconds.
5. Gently lower yourself to the floor. Remember to keep your forearms in contact with the floor at all times.
6. Repeat 5 times.

Lower Back and Hip Stretch



1. Lie on your back with knees bent and feet flat on the floor.
2. Press your lower back onto the floor.
3. Grasp one knee with both hands and pull toward your chest keeping your head on the floor.
4. Keep the other knee bent and foot on the floor.
5. Hold for a count of 10 then return to starting position.
6. Repeat with the other leg.
7. Repeat 10 times on each leg for 3 sets.

Pelvic Tilt



1. Lie on your back.
2. Bend your knees at a 90-degree angle.
3. Tighten stomach muscles and buttocks.
4. Slowly push your lower back downward.
5. Hold your back in this position for 5 seconds.
6. Slowly return to normal and relax.
7. Repeat 5 times.