

Thomas Jefferson  
University

March 2010



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University

E-Newsletter

## U S I N G   A R M S   &   H A N D S   I N   A C T I V I T I E S   & R O U T I N E S

Throughout the day infants and toddlers have many opportunities to use their arms and hands and develop their fine motor skills. During bath time they can hold their toothbrushes, during mealtime they can hold spoons, and during story time they can turn the pages of books. Unfortunately, a lot of the objects that we use during the day are not made for little hands, causing these routines to become difficult. Low-tech assistive technology and simple adaptations can be used to adapt these objects so that infants and toddlers can easily participate in all routines. In this issue of the newsletter we'll discuss various ways to adapt materials using low tech solutions so that children can participate in activities and routines that require use of arms and hands. We use a total of 12 general routines, however your family may have more or less depending on your daily activities.

### U S E F U L   M A T E R I A L S

You don't need fancy equipment to make low-tech AT and adaptations for arm and hand use. You may even find that you already have the materials to create or adapt a piece of equipment. Listed below are materials that may be helpful when creating AT interventions. .

- Velcro
- Shower Curtain Rings
- Popsicle Sticks
- Fabric
- Contact Lenses containers
- Film Canister
- Hairbrush
- Phonebook
- Foam
- Magnets
- Pom-poms
- Hot glue
- Paper Clips
- Cookbook stand
- Deodorant
- Styrofoam tray
- Magnets
- Wooden Knobs
- Stress Ball
- Tennis Ball
- Wiffle ball/golf ball
- Clay
- Large beads
- Prescription canister
- Hair curlers
- Push light
- Light switch extender
- Duct tape/masking tape

### In This Issue

Useful Materials	<b>1</b>
General AT and Adaptations for Arm and Hand	<b>2</b>
Adaptations in Activities and Routines	<b>36</b>
Helpful Websites	<b>7</b>
Idea to Share	<b>8</b>

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Throughout the day, children use their arms and hands for many activities and routines. Below is a chart with general ideas that can be applied to most activities and routines.

**GENERAL AT AND ADAPTATIONS IDEAS FOR ARMS AND HANDS**

Build up small handles with cloth, foam, clay, tape, etc. to make them easier to grasp.



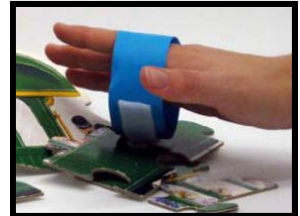
Add an attachment to a zipper to make it easier for the child to zip and unzip clothing or backpacks.



Use Velcro closures on clothing instead of buttons, snaps or zippers.



Create a Velcro bracelet for the child to wear and attach the other side of the Velcro to an object the child would like to hold.



Put large knobs on drawers that the child has access to for easier grasping.



If clothing has a button, attach Velcro to the back of the button and the top of the button hole.



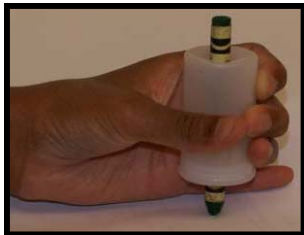
Use soft toys or objects that can be easily grasped.



Use switch operated lamps or push lights in rooms the child uses.



Use a tennis ball, stress ball, film canister, or prescription bottle to build up small handles. Poke holes through the top and bottom of the object you use and stick the handle through the holes.



Attach objects that the child has trouble holding to a bracelet. Have the child wear the bracelet when using the object. If the object is dropped it will still be secured to the child's wrist.



Add a light switch extender to light switches in rooms the child uses for more independence in turning on the lights.



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## ADAPTATIONS AND AT FOR ACTIVITIES & ROUTINES



### MORNING ROUTINE

#### Turning on the light

- Use a light switch that can be controlled by a remote control. Keep the remote by the child's bed so that he/she can turn the light on in the morning.

#### Playing in bed/crib

- Attach Velcro to the back of a toy or stuffed animal and to a spot on the wall, crib, or bed so the child can have easy access to his/her favorite toys.



### BATH TIME

#### Brushing teeth

- Attach a hair scrunchie, ribbon, coil keychain, etc. to the end of a toothbrush. Secure the scrunchie, ribbon, keychain, etc. around the child's wrist before brushing his/her teeth. If the toothbrush is dropped, it won't land on the floor.
- Use a finger toothbrush.

#### Cleaning self

- Have children wear bath mitts so they don't have to grasp washcloths; secure the soap somewhere in the tub so the child only has to rub his/her hand against the soap to use it.



### BED TIME

#### Turning out the light

- Use a light switch that can be controlled by a remote control, keep the remote by the child's bed.
- A lamp dimmer can be plugged into the child's lamp and the dimmer switch can be positioned next to his/her bed.
- Adapt music boxes, tape or MP3 players with switches so children may turn music on & off

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## CHORES

### Cleaning up after meals

- Add attachments to plates, utensils, cups, etc. so the child can easily carry things to the counter, sink or dishwasher.

### Making the bed

- Attach soft foam balls to the ends of the child's comforter. The child can pull the balls to straighten out the covers.

### Helping with meal preparation

- Use a standing tower or stool to allow children to reach counter tops or the sink to help with making food, washing dishes, or other meal preparation tasks that children enjoy.



## ERRANDS

### At the grocery store

- Secure one end of a cord to a child's toy and then secure the other end to the handle of the grocery cart. If the child drops the toy it will be easy to retrieve it.
- Toddlers enjoy helping with shopping by using a short picture shopping list.

### In the waiting room

- Bring paper clips to attach to children's' books for children to "read" while waiting for the pediatrician.



## LEAVING THE HOUSE & TRAVEL TIME



- Use Velcro, slip on shoes, or elastic laces that do not require tying to help children get ready more quickly; use modified fasteners for coats, boots, etc.
- Small toys and an over the seat toy storage device may make it easier for children to manipulate objects while riding or attach small objects to the car seat to keep them within reach.
- Fasten small toys to the child's stroller to keep toys within reach while riding.
- Pieces of foam or rolled up towels may provide better postural control thereby allowing a child to use her hands more easily for manipulation

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## MEAL TIME

- Use non-slip material to secure plates and bowls.
- Add handles to cups, bowls, or plates.
- Add handles to a bottle.
- Use forks or spoons with wide grip-able handles or other adjustments such as bent handles.



## OUTDOOR PLAY

- Blowing bubbles—build up the handle so it is easier to grasp; make your own wand from an old laundry detergent bottle.
- Use wide sidewalk chalk to draw on pavement
- Help with using a sliding board by putting the child on towel and pulling the towel.
- Explore local stores for swing seats that can be used with infants & small children.



## FAMILY OUTINGS

- Out at a restaurant? —as with mealtime, bring non-slip material to secure plates and bowls.
- Use homemade or commercially-purchased cloth chair covers to provide support in restaurant high chairs.
- At the park—bring large, grip-able toys to play with
- At the beach—bring a wide-handled shovel so the child can dig in the sand. Or use foam to make the handle easier to grasp.
- Use a child's plastic beach chair pushed into the sand or a child's bath chair to provide support so that children can use arms and hands for manipulation rather than support.

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## PLAYTIME (indoor)

- Secure paper to table with tape or use a heavy clip board or lap desk that has a clip to hold the paper.
- Hold playing cards with a hairbrush or an old phonebook that has been cut.
- Velcro simple games like tic-tac-toe to an easel or the wall; or use magnets and play on the fridge.
- Make puzzles—paste pictures onto blocks or small boxes and divide into a few sections.
- Shop the toy stores to find toys that are easy to manipulate – many toys are commercially available.



## STORY TIME

- If the pages of books are getting torn—carefully remove pages from the book and laminate them. Then put each page into a photo album or scrapbook. If the child really enjoys tearing, give him/her a magazine, catalog, or old phonebook that can be torn.
- If the child has difficulty turning the pages of books—add pieces of foam, popsicle sticks, disposable contact lens cases, etc. to the corner of each page—this will separate pages and give the child a bigger target to hold on to while page turning.
- If the child has difficulty holding books—use a cookbook holder to prop the book on a table or tray in front of the child.
- Make props of story characters with paper plates with popsicle stick handles so that the child can participate when stories are read or use puppets of the story characters.

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## U S I N G   A R M S   &   H A N D S :   I D E A S   T O   S H A R E

**Picasso?! It's Possible!** Turn a frustrating painting experience into an enjoyable activity with an old roll-on deodorant bottle and some paint.

**From:** Dee A. Blose and Laura L. Smith  
Thrifty Nifty Stuff for Little Kids:  
Developmental Play Using Home  
Resources. San Antonio: Communication  
Skill Builders, 1995.

### Materials:

Empty roll-on deodorant bottle  
Paint



**Instructions:** Clean out an empty roll-on deodorant bottle. Remove top and fill bottle with paint. Replace top, making sure it is secure. Supply child with paper and watch them create a masterpiece!

For more ideas to share please visit our website - <http://tnt.asu.edu/ideas>.

Do you have an idea that you'd like to share with others? Submit your idea with a picture and description, we'll put it on our website as a part of our Ideas to Share. To submit your idea, or if you have any questions, send an email to [jill.mcleod@jefferson.edu](mailto:jill.mcleod@jefferson.edu).

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Please feel free to forward this newsletter to any individuals or agencies that may benefit from information on assistive technology.

Questions? Comments? Concerns? Want to have the newsletter sent directly to your mailbox? Email Jill at [jill.mcleod@jefferson.edu](mailto:jill.mcleod@jefferson.edu)