



## GUIDE TO HEALTHY COMPUTER USE

How many times have you seen little legs dangling under the computer desk and thought it was cute? Would you be surprised to learn that dangling legs are a common cause of back strain in children? If so, you are not alone. Experts estimate that 80 percent of home computer stations are not adjusted to comfortably accommodate kids. In addition to the back, the wrists, neck, and eyes are all susceptible to strain if a computer station is not set up properly.

**Now the good news:** You can easily reduce the risk of strains by making some simple adjustments to your computer station. These are outlined in section #1. This guide also explains how to check to see if your child is using the computer properly. This is outlined in section #2

### 1. How to Set Up a Family Computer Station

#### Room

Put your computer in the family room or another frequently used room and not in a child's bedroom. This will allow you to more easily monitor your child's computer use and will reduce the likelihood of computer overuse, especially before bedtime.

#### Seat Position

Select a chair with at least height and back support adjustments. If you do not have a chair where you can adjust the depth of the seat (i.e., the distance from the front edge of the seat to the back), place a firm cushion behind your child for back support. It is also ideal to have a chair with adjustable armrests that can be raised, lowered, or pivoted. Most kids will need the armrests lowered. Avoid dangling legs, which pull down on the torso and cause the back to arch. If your chair cannot go down low enough, try using a child's stepping stool. Here's an example:

#### Computer Mouse

The computer mouse is generally placed too high for young children, causing them to place their wrists at an angle.



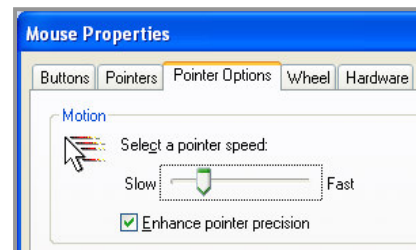
Make sure the computer mouse is on a stable platform and at the right height for your child. If the whole family uses this computer, the ideal setup is to have a height-adjustable, "tilt-down" keyboard tray. (These trays incline so that your arms slope down.) The platform should enable the mouse to be close to the side of your child's body so that his or her arm does not have to extend to one side.

Be sure to allow plenty of space for your child to use the computer mouse. Young children often move their entire arm when using a mouse, as opposed to the subtle wrist movements that adults make. If you find that your child has trouble keeping the mouse on a standard mouse pad, try a wider surface, such as a placemat. In fact, some kids may prefer trackballs because they can be easier for small hands and don't require a large surface area. Also consider using a smaller, child-size mouse. You may wish to try out various options at an electronics store.

Another simple way to avoid mouse frustration is to place a small sticker on the left button. This will help your child remember which button to click!

Lastly, be aware that young children sometimes have trouble stopping the mouse cursor at the right spot. You can also help by adjusting the mouse speed on your computer. Here's how:

1. Go to the hardware section of your Windows control panel.
2. Double-click the computer mouse icon.
3. Click on the "Pointer Options" tab.
4. Move the motion slider toward "Slow."
5. Also, if you see an option for mouse "acceleration," you may want to uncheck this option.



## Computer Monitor

If you share a computer workstation with your child, it's best to have an adjustable monitor that you can easily adjust in height and tilt. For example, try a monitor with an adjustable arm that can be easily pushed up or down, as pictured at right:

If your monitor is not adjustable, you can place a booster seat or firm cushion under your child. Position the monitor directly in front of where your child is facing. Avoid angling to the left or right. (Some monitors may look dim or blurry from the sides.) Your child's eyes should line up with a point on the screen that is no more than two or three inches below the top of the monitor.

The monitor should also be at a comfortable viewing distance. Test this by having your child sit naturally in the chair, raise his or her arms, and extend both hands. Both sets of fingertips should just about brush against the screen. (Further away is okay, too.) If your child can touch the screen, he or she is too close.



## **Lighting**

Keep moderate lighting on while using the computer. There should not be too much contrast between the screen and the surrounding area. Soft, indirect lighting is best for minimizing contrast. If you have a concentrated light source, such as a floor lamp or desk lamp, keep it out of your child's field of vision when facing the screen. Also take care to position the monitor so as to avoid glare on the screen. Sunlight, direct lighting, or nearby glossy or metallic surfaces can all contribute to glare. If it's unavoidable, try a glass anti-glare screen.

## **2. Healthy Computing Habits**

### **Adjusting the Workstation**

It's never too early for kids to adjust the computer workstation to suit their needs. If you have a computer monitor with an adjustable arm, for example, train your child to push it down to his or her level each time before use. Whatever is within your child's capabilities, we recommend encouraging that he or she try it.

### **Posture**

Your child needs to try to keep in the correct posture. This is tough, because young children are not fully aware of how their bodies are positioned. It is unlikely, for example, that a child would actually be able to keep track of whether his or her wrists or neck are angled properly. So it is especially important for you to monitor and try to correct your child's posture.

To ensure that your child is positioned correctly at the computer, use the following guidelines:

#### **Upper body posture:**

- If you're using an office chair, lower it so that your child's feet are evenly planted on the ground. If the chair is not adjustable or cannot go low enough, place a stepping stool under your child's feet to avoid dangling legs.
- Your child's upper and lower back should be well supported by the chair. Aim for a 90-degree angle and place a firm cushion behind your child if necessary.
- The upper arms should be close to the body and relaxed.
- The head should not be tilted back or too far forwards.

#### **Arms and hands:**

- Your child's forearms should be "open" at an angle greater than 90 degrees.
- Wrists should be in a neutral position (level with forearm), and hand movements within 15 degrees up, down, left, or right) should be encouraged.
- Encourage your child to move the mouse with the forearm and not just the wrist.

## Lower body:

- Feet should be firmly planted on the floor, a footrest or stepping stool for support.
- Knees should be bent at a 90-degree angle.

## Taking Breaks

The risk of strains depends heavily on how long your child plays on the computer without taking a break. Combining breaks with good workstation setup and posture will result in better health now – and will develop great lifelong computing habits!

For extended computer use, there are two especially important kinds of breaks to take:

1. **Blink Breaks:** Every 10 to 15 minutes, your child should briefly take his or her eyes off the screen. Train him or her to look away from the screen, ideally at an object 20 or more feet distant for about one minute. This relaxes the eye muscles, preventing strain. Or, suggest he or she take a “blink break.” (You can even turn this into a game, counting the number of blinks.) Blinking rapidly can also help cleanse the eye surface.
2. **Exercise Breaks:** Kids are meant to be moving around, not sitting in one place for too long. Encourage your child to stand up, jump, stretch, move around, get a drink – anything to exercise different muscles and loosen up.



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