

The Willbarger approach

1. Many people call it a brushing technique because it uses a brush, but it's really much more than that and it doesn't involve brushing. Instead the key to successful results is **pressure touch**. The technique requires a specific kind of surgical brush that does not scratch, tickle, or itch when stroked firmly across the skin. The pressure on the stroke must be firm enough to bend all the bristles of the brush and press all the tactile receptors in the area.
2. The "brushing" should be quick, moving all over, avoiding repeated strokes to the same area. The objective is to cover a large area quickly and then follow it immediately with compression/traction to all joints.
3. It is important to smoothly and evenly apply deep pressure. Therefore, hold the brush in a horizontal direction when going over skin. Keep it moving. It is best to brush over the skin directly. It can be done through clothing if necessary, but the effectiveness will be diminished i.e., slower, less dramatic change.
4. Never "scrub" back and forth over the same area. Take long strokes, turning the limb or moving around so you're stroking all over.
5. Brush all of each arm, leg, back, and buttocks, usually starting at the top and working your way down. Be sure to brush the palms of the hands, and if possible, the soles of the feet.
6. Never brush someone's stomach, and don't let the person brush this area either. There are lots of nerve ganglia located around the visceral organs. When we brush over muscles and skin we know what happens to the receptors and what nervous system loops are involved. We don't know what happens when we brush over the stomach except that brushing to the stomach can drive the nervous system into acute distress.
7. Also leave the face and head alone because these are personal and protected spaces that most people don't like others to touch under most circumstances. If the individual brushes his or her own face, that's okay.
8. When done correctly the brushing doesn't feel like brushing. Instead it feels like pressure with a flush of tactile sensation spreading quickly over the area. To accomplish this the brushing must be done quickly and over large areas, moving constantly.
9. Brushing must be followed immediately with compression. Compression is given as 10 quick presses to the key joints of the upper and lower extremity. It is especially important to give compression into the shoulders, elbows and wrists, and into the hips, knees, and ankles. What happens with compression is that the brain thinks the bone is going to be displaced, so all the proprioceptors in the immediate area fire at once to stabilize and protect the joint. This proprioceptive firing provides a flood of strong (epicritic) calming or inhibitory input to balance the effect of the brain centers that are firing so much excitatory flow.
10. Repeat the regimen every 90 minutes to 2 hours according to the schedule set up by the responsible occupational therapist. The input you are providing is known to last in most systems about that long, that's why it has to be repeated. The objective is to keep the calming input in the person's system to help the individual remain in the optimal zone of sensory modulation (that is calm and alert but not overly aroused).
11. If this is going to help the individual, we should see positive change within several days. It may be evident on the first day. In most people, it is evident within the first few days. If there is no positive change after several days, the benefit of the technique should be evaluated by the responsible occupational therapist. It is important to not discontinue the technique prematurely once it is started. That's why it is absolutely essential that the Willbarger technique not be used indiscriminately and that its appropriateness for a specific individual be determined by an occupational therapist who is knowledgeable about sensory processing disorders.

Precautions:

1. Avoid brushing over skin lesions, burns, rashes, or other obviously tender or sensitive skin areas.
2. Pay close attention to the person who is getting this input for the first time to quickly detect any unexpected responses.
3. If the skin turns red while you are brushing you are probably seeing a histamine reaction. This may indicate that you're spending too much time on the same area. Keep moving, avoiding red area. Try to cover a big area fast.
4. If anything unusual or unexpected happens notify the occupational therapist as quickly as possible.

BRUSHING

TYPE:

EZ Scrub 160 #2 from Therapro Catalog (as recommended by Wilbarger) or silk bristol brushes sold by Clipper Mills

CONTRAINDICATIONS/PRECAUTIONS:

It is a controversial technique. It impacts the nervous system strongly. Should be used cautiously and as a last resort.

It is **contraindicated** if a child has allergies. ANY ALLERGY (food, pollen, etc.). Brushing someone with allergies can cause a histamine reaction. You can perform a scratch test to see if someone will have a histamine reaction. Do this by running fingernail down forearm. Watch area to see if it turns red with a white halo around it. This is positive for a histamine reaction.

If a person does have a histamine reaction you can provide toweling with lotion (or no lotion if the person has a skin condition or is allergic to the lotion).

Never brush the stomach, face or neck. Wilbargers say if the child has a history of seizure or CP you should not brush, however therapist do use this technique cautiously depending on the child's reaction.

PROCEDURE:

Apply even pressure throughout stroke.

Hold the brush horizontal to the skin (bristols will not scratch the skin when held this way).

Use short bursts of strokes.

If possible maintain contact on the body of the child toward the direction you are moving.

Work from fingertips up to shoulder down and up back to opposite shoulder and down arms. Do LE's also. It does not matter if you do LE's or UE's first.

If you cannot get the child's clothes off do it over the clothes.

Provide 8-10 compressions per joint. Can combine joints such as DIP's, PIP's and MP's; wrist, elbow and shoulder; or ankle, knee and hip. Also provide joint compression down through the head IF you can assure correct alignment.

The more active the joint compression, the more effective - ie - pushing a cart, crawling, etc.

TREATMENT USE:

Brushing plus joint compressions should only take a total of 3 minutes.

The Wilbargers recommend providing brushing every 2 hours (waking Hours) for 2 weeks. If you see improvement then begin winging the child off. If no change is noted discontinue. Brushing can be re-used at later intervals - ie - one month off, or 2 months off, etc.

The effects last for approx. 2 hours after brushing has been applied. Be sure to be able to observe/monitor the child's reaction/behavior.

If you cannot get a child on a schedule and have the family involvement you can use brushing at the beginning of your treatment session if you are seeing improvements. NOTE: sometimes it may take an extended accumulation (days, weeks) to see changes.

STORAGE:

Store brush in a plastic container so it does not deteriorate and begin scratching the child.

Information compiled by V. Campbell from a presentation made at an AOTA sponsored workshop on the "Integration of SI and NDT".

Brushing Protocol

Wilbarger(1988) has described a systematic technique for providing deep touch-pressure to clients. She has recommended using a surgical scrub brush to rub quickly on the clients's arms and legs , followed by applying joint compression to the ankles, knees, hips, wrists, elbows, shoulders, toes and fingers. Wilbarger does not allow the client to withdraw from the tactile stimulation , but she instructs clients who are verbal to tell her how hard or soft she should scrub. The entire procedure takes approximately 2 minutes.

Wilbarger(1988) has claimed that this procedure is effective for decreasing tactile defensiveness when it is used six or more times per day for a period of several days (up to 2 weeks). After this period of intensive input, she recommends that clients do "maintenance treatment."

Although highly successful with some clients we know, this technique may elicit aggressiveness, severe withdrawal, crying, or other adverse responses in other clients. As with all procedures, imposed scrubbing should be discontinued if the effects are negative.

The above is quoted directly from the following source.

Fisher, A., Murray, E., Bundy, A., (1991) Sensory Integration Theory and Practice
Philadelphia, PA: F.A Davis Company

Procedure:

1. Using the supplied surgical scrub brush, apply rapid and firm strokes to the child's arms, hands, back, legs, and feet.

Note: You should never brush the stomach. (The head, neck, and chest should also be avoided.)

2. Following the brushing, joint compression needs to be applied to shoulders, elbows, wrists, hips, knees, ankles and fingers and feet.

It is important that this procedure be repeated every two hours for it appears if applied consistently over time, the defensiveness is permanently reduced or eliminated.

Brushing and joint compression routines are best started on a weekend to get the most consistency. It is also helpful for parents to try in integrate the activity into the normal family routine. (i.e. when child wakes up, gets dressed, bath times, and other transition times.) If the child goes to school, the program may be carried out during the day, by the school staff. If this is impossible, the parent may do the program right before and after school.

****Again it is important to not let the child withdraw from the stimulus, and to continue the program for at least 2 weeks.**

Time for most people is a precious commodity. Please attempt to complete the brushing and joint compression at least 6 times a day. Do not punish yourself if you are not able to do this; simply do the best that you can.

A log sheet is provided to assist you and other caregivers with keeping track of the program.