

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

I. CONTRAST

Look for ways to increase contrast in:

- Color intensities (dark against light)
- Amount of lighting (dim versus bright) where appropriate
- Busyness (patterns versus plain solids, or commotion versus quiet)

A. Are there contrasts that draw attention to the areas of the room this person might need or want to use, for example, are the room decorations in safe areas more visibly engaging than decorations near dangerous unused exit doors?

1. Identify areas of the room this person might need or want to use most frequently, for example, the toilet in a bathroom or the table in a dining room.
2. Make areas this person needs or wants to use stand out from other areas, so they draw this person's attention. For example, increase the amount of color on the toilet; increase the light-dark difference between the toilet and the wall; or place an attractive centerpiece on the dining room table, so this person immediately notices the toilet or the table upon entering the room.
3. Use bright colors, interesting decorations and objects, or warm cozy furniture to make areas this person needs or wants to use stand out. For example, add a soft fuzzy seat cover to the toilet; an interesting eye-catching picture on the wall just above the toilet; a bright tablecloth on the table, brightly colored pillows on a less colorful sofa; a bright interesting blanket on a bed; a brightly colored porch swing; a closet door that contrasts with the wall.
4. Identify each area of the room this person might need to avoid or not want to use very frequently, for example, a door leading to stairs or the outside
5. Make each area of the room that is unsafe or less desirable, less obvious. For example, reduce the amount of light in that area, camouflage the door by painting it the same color as the wall around it, or simply make the colors and objects in that area less interesting or eye-catching.

B. Are there contrasts that highlight objects this person might need or want to use, for example, is there enough difference between the toilet seat and toilet, the closet door and surrounding wall, the towel and the wall, the shower nozzle and shower wall?

1. Identify objects this person might need or want to use.
2. Make objects this person might need or want to use stand out from the area surrounding them, so they draw this person's attention and help this person see an object and its exact location. For example, increase the color or light-dark differences between an object and the wall or surface behind it, such as between: the toilet and the floor so this person can easily recognize the location of the toilet when trying to sit on it; a railing or grab bar and the wall behind it, so she/he can more easily grab the railing or bar when falling; a dinner plate and the table

underneath it, so she/he can more easily aim for the plate with a fork when eating; a colorful light switch on a plain wall; and the shower nozzle and the wall behind it.

3. Make objects this person might need or want to use different from other objects. For example, add color to the spoon to contrast with the fork; boldly write this person's name on the toothpaste tube to make more contrast with the tube of cream; use a different color, size, or shape of pill box for morning pills versus afternoon pills.
4. Increase the light-dark difference between objects. For example, between a chair and the floor; the floor and table; a white pill in a small dark dish; a colorful toothbrush on a plain neutral colored shelf; or a colorful washcloth on a white sink.
5. Serve foods that vary in color for easier identification. For example, serve green beans, red tomatoes, and white potatoes, rather than white potatoes, white pears, and white cauliflower in the same meal.
6. Avoid using too much contrast. Highlight only important objects. Let other objects fade into the background. For example, make this person's dinner plate and dishes all the same color (unless a particular dish must stand out), so that this person doesn't expend energy on noticing and interpreting unnecessary contrast, and can save energy for more important environmental stimuli.

C. Are edges of surfaces and changes in floor height highlighted with contrasts, such as edges of tables, stairs, bathtubs and shower thresholds so this person can see how high to lift her/his feet or avoid bumping into objects?

1. Identify all surface edges and changes in floor height in the room.
2. Highlight those surface edges that are important for this person to see and locate for safety and comfort. For example: edges of stairs or single steps into another room; corners of tables; edge of a porch; edge of a chair or sofa when trying to sit. Make the baseboards on walls match the wall color and contrast with the floor in light-dark intensity, so this person can more easily see exactly where the floor ends and the wall starts.
3. Highlight floor height changes that are important for this person to see and locate. Make it easier for this person to know when to step up and over something. For example, add color to raised thresholds into another room or into a shower.
4. Increase contrast to help with depth perception. For example, to clarify how deep the water in the bathtub is, add color to the water, a colorful mat on the bottom, or lines on the inside wall of the tub. Increase light-dark contrast between the toilet and the floor, and a chair and the floor.
5. Avoid using too much contrast. Highlight only real edges or changes in height. For example, avoid lines, borders, or patterns on floors or carpets that might be misinterpreted as a change in floor height, and thus cause this person to hesitate or increase the risk of falling. Avoid a change in floor color, or a contrasting threshold color from one room to another, if there is no change in floor height. Help this person feel completely safe when walking. Avoid using decoration or cues on the floor.
6. Avoid walls with different colors above and below the wainscoting so that this person doesn't expend energy on noticing and misinterpreting the contrast as a change in the surface, and can save energy for more accurate and important environmental information about safety.

D. Do objects this person needs to avoid look similar to the surrounding area, for example, do electrical outlets and dangerous door exits look similar to the surrounding wall?

1. Identify each object in the room this person might need to avoid or not want to use very frequently, for example a sharp knife in the kitchen, scissors in the sewing room, electrical outlets in the bathroom, a dangerous exit door, or a storage closet door.
2. Make each object in the room that is dangerous or less desirable, less obvious. Either remove the object or make it blend in with its background so this person will less likely notice it. For example, camouflage an electrical outlet, a dangerous exit door, or a storage closet door by painting it the same color as the wall around it.
3. Avoid changing the object so that it looks like something else (e.g., making an electrical outlet look like a wall decoration), unless it is necessary. Avoid increasing this person's confusion by giving inaccurate environmental information.

E. Is there a variety of moods created by various spaces, so this person can be drawn or led to an area that accommodates (by either matching or changing) his/her mood at the moment, such as a busy high-energy living room and a quiet cozy den?

1. Identify moods each room or area of a room might generate. Remind yourself that this person's emotions might be easily influenced by the mood of a room or space. For example, a bright, busy living room might foster a high energy, active mood in this person. A small quiet, cozy den with a fish tank might foster a calm quiet mood in this person.
2. Make sure there is a variety of places to go to help this person in her/his various moods. For example, when she/he is overly energetic or the environment of the room she/he is in is too stimulating, make sure there is a quiet space she/he can go to that will help her/him feel calm, without feeling isolated. Or when she/he is feeling energetic, make sure there is a room that can match her/his mood.
3. Decorate and furnish each room with objects and furniture that will create a mood and function intended for that room. Avoid relying primarily on people or events to create a mood. Alter the color, variety of objects, and amount of furniture and objects to create a mood.
4. Use a variety of cues to inform or to draw this person to each of the rooms or areas. Make each room visible to this person. If that is not possible, then create visible cues to alert this person to where the various rooms and spaces are. Use cognitive cues such as directional signs with words to indicate where rooms are. Make some of the cues emotional and not simply cognitive. For example, create a path of cues that might draw this person emotionally, so that when this person is sitting in a lively living room, she/he can see a luxurious plant and lamp that look quiet and cozy. She/he may be drawn emotionally to the lamp and plant, and from there see the quiet cozy den where she/he can rest calmly.