



International Childbirth Education Association

*Using Biodots – ICEA Teaching Idea Sheet #3*

Biodots are microencapsulated crystals which respond to the temperature of the skin. Their use in relaxation is based on the observation that a tense person will usually have a lower skin temperature in the extremities (hands, for example) than will a relaxed person. The expression “I have cold feet”, indicating fear or reluctance to do something, illustrates this.

Biodots are only one method of indicating the degree of relaxation. They should not be relied upon to prove or disprove relaxation, but can be used as a guide. Cold hands and feet may result from a medical condition, e.g. poor circulation; or from a long-term, underlying tension that may not be recognized by the individual. For this person, the limbs may be relaxed and floppy, but because internal tension is a common state of the body, the skin temperature is lower and the dot stays black. Specific relaxation techniques could help raise the skin temperature, such as autogenic, which emphasizes feeling increased warmth in various parts of the body.

Color changes in the dots range from black to violet. Black indicates that the skin temperature is approximately 87 degrees Fahrenheit (30.5 degrees Celsius) or lower. As

the skin warms, the following color changes occur:

<b>Color</b>	<b>Temperature</b>
Amber	89.6 F (32 C)
Yellow	90.6 F (32.5 C)
Green	91.6 F (33.1 C)
Turquoise	92.6 F (33.6 C)
Blue	93.6 F (34.2 C)
Violet	94.6 F (34.7 C)

To be effective, the room temperature should be between 70 F (21 C) and 75 F (24 C). If it is lower, the skin may remain too cold and the dot will remain black or not react, even though the person is relaxed. If the room is much warmer, the dot may indicate relaxation even though the person is tense.

The Biodot may be placed anywhere but it is frequently put on the dominant hand, just above the webbing between the thumb and forefinger. It is not as easily dislodged from this spot as it might be from a fingertip. Those that use the Biodot may want to experiment with different locations to see if there are significantly different results between one hand and the other, or on warmer spots such as the palm.

If careful, people can wash their hands without washing off the dot. In some cases, the dots can be removed at night and reapplied the next day.

### **Class Use**

Biodots are a good “ice breaker” when distributed at the beginning of class. Class members can observe color changes as they become more at ease and begin relaxation practice. The dots should not be used to “show how good you are at relaxing”, but should be used more in the spirit of exploring what topics or activities cause the person’s body temperature to be lowered or raised. Remember, those whose tension has chronically lowered their skin temperature can still have apparently relaxed arms and legs.

The Biodot is a tool for increasing one’s body awareness. By observing color changes through a class session, the individual can become aware of the increased tension (drop in skin temperature) during, for example, a discussion of birth complications, when called upon to do a return demonstration, or when acting as a labor supporter. Stressful times can be discussed with the partner or shared with the group.

Biodots can graphically demonstrate which relaxation techniques provide the most skin warming for the individual. Some class members may have a negative (temperature lowering)



response to a particular technique or to a specific music being played. The instructor should frequently ask the class to check the color of the dots. When the results are shared with the group, any color changes can be enlightening to the other class members.

The instructor may wish to put the color changes and temperatures on a large chart. Class members can check the color progression for themselves without always asking the instructor.

### **Other Uses**

Biodots are not limited to pregnant women. Outside of class, men and women can become aware of stressful situations, such as driving in traffic, confronting an unpleasant person or situation; or of particularly relaxing times, such as cuddling the new baby or one's partner. Biodots may be purchased from a number of online outlets.