

## **What are Biodots?**

Biodots are small self-adhesive temperature sensitive discs that can be stuck to the skin. They indicate changes in temperature by changing colour.

### **How do Biodots monitor stress?**

Biodots monitor skin temperature changes which are due to changes in the amount of blood flowing through the skin. More blood flow - skin is warmer; less blood flow - skin is cooler. When a person is tense and stressed the blood vessels constrict - reducing skin blood flow - and the Biodot will appear yellow, amber or black. When they are calm and relaxed their blood vessels dilate - increasing skin blood flow - and the Biodot will appear turquoise, blue or violet.

### **How to use Biodots**

Stick the Biodot where it will be easily seen and where it will not be easily dislodged. Recommended sites are on the inner surface of the wrist and the base of the thumb and forefinger. If care is taken the Biodot can remain attached to the wrist for several hours.

### **Other factors affecting Biodot colour**

There are certain conditions and activities which will affect Biodot colour changes and should be taken into account when monitoring stress levels. These include:

- \* ambient temperature - if the external temperature is cool or cold the skin blood vessels constrict (Biodot in black/amber/yellow range); if it is warm or hot the skin blood vessels dilate (Biodot in green/blue/violet range). When you have acclimatised to the prevailing temperature any change in colour will indicate a change in the level of stress.

- \* exercise - colours indicating high stress levels will be observed when a person is undertaking moderate exercise and going about their daily activities, even though they may not be emotionally stressed or tense. This is because the skin blood vessels constrict allowing more blood to flow to the muscles. In severe exercise, when the body is hot, the skin blood vessels will dilate allowing heat to be lost.

- \* alcohol consumption and smoking - alcohol dilates blood vessels and the Biodot will show green/blue/violet. Smoking causes constriction of the blood vessels and the Biodot may appear black/amber/yellow.

### **Biodots - an aid to relaxation**

Biodots are particularly useful as biofeedback during relaxation training, motivating the user and providing reassurance that they have achieved relaxation and stress reduction.

### **Try the following technique:**

Sit in a comfortable upright position, place a Biodot on your hand and note the colour. Make a note of the time. Close your eyes then repeat aloud the sound 'om' or 'one'. Do this several times then repeat the sound more quietly and then quieter still until you are not moving your lips but merely thinking the sound over and over in your mind. Do not concentrate on keeping the sound in the fore-front of your mind - it should not be like counting sheep. You will find that your mind begins to wander. Let the thoughts come then let them leave by simply thinking the sound again. (The sound is purely a means of helping you clear your mind). Continue in this manner for 20 minutes then gradually and slowly open your eyes and note the colour of the Biodot.

You are aiming to see a change in the colour of your Biodot towards the turquoise blue range to show that you have achieved a state of calm and relaxation, and reduced your level of stress. This form of relaxation is known as meditation. Do not use an alarm to tell you when the 20 minutes is up - look at a clock when you feel that 20 minutes has passed. Find a regular convenient time to meditate each morning and evening at a time when your home or office is reasonably quiet, you will not be disturbed and the room temperature is comfortable. Avoid eating an hour beforehand. Late evening meditation may affect your sleep since meditation usually increases alertness.

Relaxation techniques must be learnt and you should not expect instant success. You will need to practise and with the aid of Biodots you will be able to monitor your progress and success. When you have achieved this you should be able to take a short meditation to relax anytime and anywhere.

Biodots available from Uniview Worldwide Ltd PO Box 20 Hoylake Wirral CH48 7HY

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