

# Eye Movement Desensitization and Reprocessing (EMDR)

**Eye Movement Desensitization and Reprocessing (EMDR)** is an information processing psychotherapy that was developed to resolve symptoms resulting from disturbing and unresolved life experiences. EMDR is rated in the highest category of effectiveness and research support in international guidelines for PTSD treatment. It uses a structured approach to address past, present, and future aspects of disturbing memories. The approach was developed by **Francine Shapiro** to resolve symptoms resulting from exposure to a traumatic or distressing event, such as rape. Clinical trials have demonstrated EMDR's efficacy in the treatment of post traumatic stress disorder (PTSD). In some studies it has been shown to be equivalent to cognitive behavioral and exposure therapies, and more effective than some alternative treatments. Although some clinicians may use EMDR for various problems, its research support is primarily for disorders stemming from distressing life experiences.

## Mechanism

The theoretical model underlying EMDR treatment hypothesizes that **EMDR works by processing distressing memories**. EMDR is based on a theoretical information processing model which posits that **symptoms arise when events are inadequately processed, and can be eradicated when the memory is fully processed**. It is an integrative therapy, synthesizing elements of many traditional psychological orientations, such as psychodynamic, cognitive behavioral, experiential, physiological, and interpersonal therapies.

EMDR's most unique aspect is an unusual component of **bilateral stimulation of the brain**, such as **eye movements, bilateral sound, or bilateral tactile stimulation coupled with cognitions, visualized images and body sensation**. EMDR also utilizes **dual attention awareness to allow the individual to vacillate between the traumatic material and the safety of the present moment**. This **prevents retraumatization from exposure to the disturbing memory**. As EMDR is an integrative therapy which combines elements of cognitive behavioral and psychodynamic therapies to desensitize traumatic memories, some individuals have criticized EMDR and consider the use of eye movements to be an unnecessary component of treatment. However, **recent studies have examined the effects of eye movements and have found that eye movements in EMDR decrease the vividness and/or negative emotions associated with autobiographical memories, enhance the retrieval of episodic memories, increase cognitive flexibility, and correlate with decreases in heart rate, skin conductance, and an increased finger temperature**. These physiological changes associated with EMDR are consistent with earlier research on physiological changes associated with EMDR. Also recent studies that have removed eye movement from the method have found the procedure less effective.

## Theoretical basis for the therapy

**Eye Movement Desensitization and Reprocessing (EMDR) has been used to treat posttraumatic stress disorder (PTSD)**. It integrates elements of imaginal exposure, cognitive therapy, psychodynamic and somatic therapies. It also uses the unique and somewhat controversial element of bilateral stimulation (e.g. moving the eyes back and forth).

**According to Francine Shapiro's theory, when a traumatic or distressing experience occurs, it may overwhelm usual ways of coping and the memory of the event is inadequately processed; the memory is dysfunctionally stored in an isolated memory network.**

**When this memory network is activated, the individual may re-experience aspects of the original event, often resulting in inappropriate overreactions. This explains why people who have experienced or witnessed a traumatic incident may have recurring sensory flashbacks, thoughts, beliefs, or dreams. An unprocessed memory of a traumatic event can retain high levels of sensory and emotional intensity, even though many years may have passed.**

EMDR uses a structured eight-phase approach and addresses the past, present, and future aspects of the dysfunctionally stored memory. During the processing phases of EMDR, the client attends to the disturbing memory in multiple brief sets of about 15-30 seconds, while simultaneously focusing on the dual attention stimulus (e.g., therapist-directed lateral eye movements, alternate hand-tapping, or bilateral auditory tones). Following each set of such dual attention, the client is asked what associative information was elicited during the procedure. This new material usually becomes the focus of the next set. This process of alternating dual attention and personal association is repeated many times during the session.

**The theory is that EMDR works directly with memory networks and enhances information processing by forging associations between the distressing memory and more adaptive information contained in other semantic memory networks.** It is thought that the distressing memory is transformed when new connections are forged with more positive and realistic information. This results in a transformation of the emotional, sensory, and cognitive components of the memory so that, when it is accessed, the individual is no longer distressed. Instead he/she recalls the incident with a new perspective, new insight, resolution of the cognitive distortions, elimination of emotional distress, and relief of related physiological arousal.

When the distressing or traumatic event is an isolated incident, the symptoms can often be cleared with one to three EMDR sessions. But when multiple traumatic events contribute to a health problem - such as physical, sexual, or emotional abuse, parental neglect, severe illness, accident, injury, or health-related trauma that result in chronic impairment to health and well-being - the time to heal may be longer.

Another perspective is that eye movements are an epiphenomenon unnecessary, and that EMDR is simply a form of desensitisation.

# Description of EMDR therapy process

**Phase I:** In the first sessions, the **patient's history** and an **overall treatment plan** are discussed. During this process the therapist **identifies and clarifies potential targets for EMDR**. Target refers to a *disturbing issue, event, feeling, or memory* for use as an initial focus for EMDR. **Maladaptive beliefs** are also identified.

**Phase II:** Before beginning EMDR for the first time, it is recommended that the client **identify a safe place**, an image or memory that elicits *comfortable feelings and a positive sense of self*. This safe place can be used later to *bring closure to an incomplete session or to help a client tolerate a particularly upsetting session*.

**Phase III:** In developing a target for EMDR, prior to beginning the eye movements, a **snapshot image is identified that represents the target** and the disturbance associated with it. Using that image is a way to *help the client focus on the target*. **A negative cognition (NC) is identified** - *a negative statement about the self that feels especially true when the client focuses on the target image*.

**A positive cognition (PC)** is also identified - a positive self-statement that is *preferable to the negative cognition*.

**Phase IV:** The therapist asks the patient to **focus simultaneously on the image, the negative cognition, and the disturbing emotion or body sensation**. Then the therapist usually asks the client to follow a moving object with his eyes; *the object moves alternately from side to side so that the client's eyes also move back and forth*.

After a set of eye movements, the client is asked to **report briefly on what has come up**; this may be a **thought, a feeling, a physical sensation, an image, a memory, or a change in any one of the above**. In the initial instructions to the client, the therapist asks him to **focus on this thought**, and begins a new set of eye movements. Under certain conditions, however, the therapist directs the client to **focus on the original target memory or on some other image, thought, feeling, fantasy, physical sensation, or memory**. From time to time the therapist may query the client about his **current level of distress**. The **desensitization phase ends when the SUDS (Subjective Units of Disturbance Scale) has reached 0 or 1**.

EMDR also uses a three-pronged approach, to **address past, present and future aspects of the targeted memory**.

## **Vocabulary of terms**

The following basic terms are described in Shapiro's 2001 text

### **Information Processing**

During information processing, a physiologically-based system sorts new (perceptual) information, makes connections between new information and other information already stored in associated memory networks, encodes the material, and stores it in memory.

### **Adaptive Resolution**

When information processing is complete, learning takes place, and information is stored in memory with appropriate emotion. The new information is therefore available to guide future action.

### **Dysfunctionally Stored Information**

When information processing is incomplete, the information is not connected to more adaptive information, and it is stored in a memory network with a high negative emotional charge. It can cause reactivity and can be the cause of various symptoms.

### **Reprocessing**

During reprocessing in EMDR, new associative links are forged between dysfunctionally stored information and adaptive information, resulting in complete information processing and adaptive resolution.

### **Memory Networks**

Neurobiological associations of related memories, sensations, images, thoughts, and emotions.

### **Target Memory**

The memory of a distressing or traumatic event, which still causes current distress, and which has been selected to be targeted during EMDR treatment.

### **Memory Components**

All components of the target memory are accessed during Phase Three to ensure that the memory network is fully activated. These components include the image, cognitions, emotions, and body sensations.

### **VOC (Validity of cognition) scale**

VOC ratings are used in EMDR to measure baseline validity of the positive cognition during Phase Three, and to assess progress being made, where 1 = not true, and 7 = completely true.

### **SUD (Subjective units of disturbance) scale**

SUD ratings are used in EMDR, exposure therapies, and other treatments to measure baseline emotional or physical pain and also to assess progress being made. This is a personal measurement of distress, where 0 = no distress, and 10 = worst distress possible.

### **Interweave**

A specific strategy used by the clinician to assist processing if the client appears to be having difficulty accessing more adaptive information. Ideally, the interweave contains needed information that would have been available except for blockage of inner pathways by trauma responses