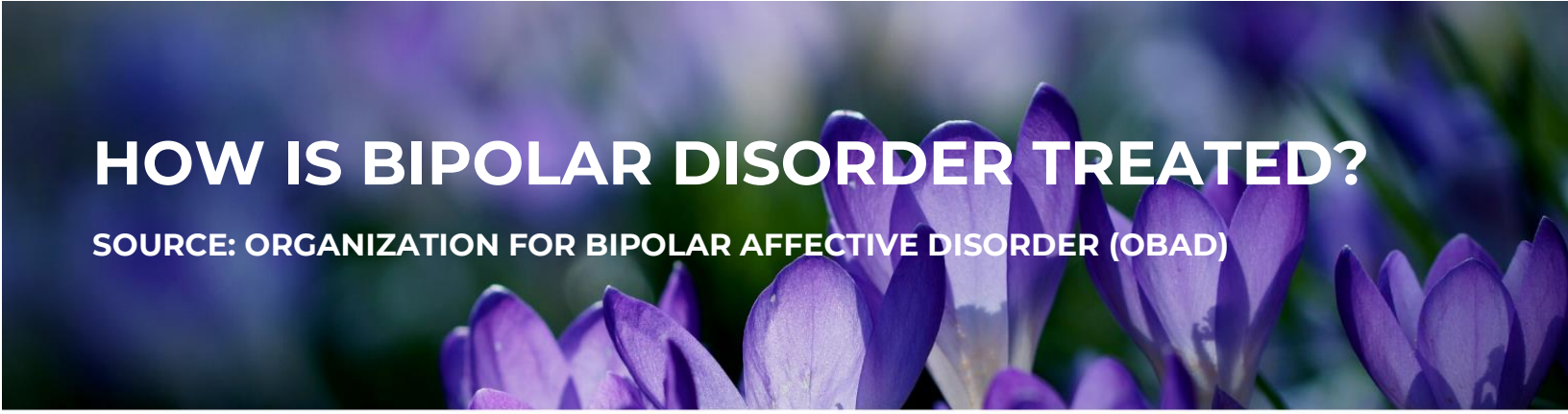

# HOW IS BIPOLAR DISORDER TREATED?

**SOURCE: ORGANIZATION FOR BIPOLAR AFFECTIVE DISORDER (OBAD)**

Effective treatment for bipolar disorder is often a combination of several components that may include:

## Medication Therapy

Medication is key in the treatment of bipolar disorder. Approximately 75-80% of all cases can be effectively treated with drug therapy. In the remaining 20%, drug therapy can significantly reduce the impact of the disorder. Although some individuals with a milder form of the disorder may choose not to use maintenance drug therapy, most individuals do require medications to stabilize and maintain their wellness.

## Psychotherapy

Individuals with bipolar disorder often experience considerable impairment in social and occupational functioning. Other secondary problems associated with the disorder include unemployment, legal and financial difficulties plus marital problems. Psychotherapy can effectively help the individual overcome the consequences of the disorder.

## Types of Therapy Include:

- Cognitive
- Interpersonal
- Behavioral
- Supportive Integrated Family and Individual Therapy (IFIT)

(This is a relatively new method for treating bipolar disorder. IFIT involves helping the individual's family understand the vulnerabilities that bipolar patients have, even to minor changes in their daily routines. Emphasis is placed on the patient keeping track of their regular daily routines. Family members are encouraged to assist the individual with maintaining their regular social rhythms. Families are taught to watch for pending episodes and learn when and how to intervene.)

## Electro Convulsive Therapy

When medications fail to stabilize, electroconvulsive therapy (ECT) may be used as part of an effective treatment program.

## Lifestyle Modifications

Many individuals find that they must make changes to their lifestyles that include making healthy choices for living.

## Education

Education is crucial for both the affected individuals and their families. It is important to be proactive and to make informed, educated decisions regarding your mental health.
Education also helps to expedite the natural process of grieving within the family unit.

## Self-Help

Joining a peer support or self-help group is often a necessary component to an effective treatment program.

## Medication Therapy: Mood Stabilizers

## Lithium

Mood stabilizers, like Lithium and certain antiepileptics, such as Tegretol and Epival,

and Lamictal, can be used to treat bipolar disorder by altering the elements in the cell, stabilizing nerve impulse transmission and chemical release. Neuronal excitability is diminished by these medications by decreasing impulse transmission and returning body movements to a more organized smooth state, relaxation, or sleep. The medications decrease the spread of the neuronal activity, reorganizing impulse formation, chemical release or response, synaptic response, or receiver cell response so messages are acted upon appropriately.

Lithium was the first of the mood-stabilizing drugs. Lithium is a naturally occurring salt that was discovered in 1817 by a Swedish chemistry student. Lithium was found in mineral rocks, natural brines, and mineral waters and in some plant, animal, and human tissues. In the mineral waters of European and American spas in the 19th and 20th centuries, lithium was found to be an agent that promoted physical and mental health. In the late 1940's, lithium chloride was used as a popular salt substitute for people on salt free diets. In 1949, John E. Cade, an Australian psychiatrist, first discovered the mood stabilizing effects of lithium. In 1957, Mogens Shou furthered Cade's discovery and campaigned for the use of lithium as a mood stabilizer, which led to the acceptance of lithium as a safe treatment for bipolar disorder.

Why lithium works remain unclear. Studies show that 70-80% of patients with mania respond to lithium and do so in a relatively short time frame, 10 - 21 days. The addition of an antipsychotic, or secondary agent, is often necessary to curtail a full-blown manic episode. Although beneficial, lithium can be potentially toxic and harmful. If blood levels are taken regularly and there is close supervision, toxicity is far less likely to occur.

### Early signs of toxicity include:

- Increased trembling
- Weakness
- Poor co-ordination
- Blurred vision
- Giddiness
- Drowsiness
- Tinnitus (a ringing in the ears)
- Nausea
- Vomiting
- Slurred speech
- Persistent diarrhea

In this event, one must call a doctor immediately and stop taking lithium.

### Common side effects of lithium include:

- Drowsiness
- Tiredness
- Increased thirst
- Increased frequency of urination
- Weight gain
- Trembling of the hands

These should subside as your body adjusts to the medication. If these symptoms persist or become bothersome, inform your doctor.

Notify your doctor if you:

- develop diarrhea
- experience excessive vomiting
- develop persistent fever
- have unsteady walking
- have periods of fainting
- become confused

- have slurred speech
- have a rapid heart rate
- have severe trembling of the hands

### Anticonvulsants (Tegretol/Epival/Neurontin/Lamictal)

Another classification of drugs that have been found to be helpful in the treatment of mood disorders is anticonvulsants (Tegretol, Epival, Lamictal, and Neurontin). These were first used to control seizure disorders. Anticonvulsants are effective in treating refractory (difficult to treat) bipolar disorder, rapid cycling, and mixed states.

Anticonvulsants can be used in conjunction with lithium therapy to augment treatment. Although they primarily reduce the symptoms of mania, they also decrease the effects of depression.

Discontinuation of an anticonvulsant involves careful and gradual reduction over several weeks or longer. Abruptly discontinuing this medication may precipitate a seizure.

Regular blood tests are required to monitor the levels of the medication to ensure that a therapeutic level is maintained and to monitor possible toxicity.

Although very rare, Tegretol (Carbamazepine) has potentially serious side effects that include:

- Hepatitis
- Massive hepatic cellular necrosis with total loss of intact liver tissue
- Cardiovascular complications
- Potential hematological disorders

Common Side Effects Include:

- Dizziness
- Drowsiness
- Loss of motor co-ordination
- Nausea
- Vomiting
- Blurred vision
- Slurred speech

Common Side Effects of Epival Include:

- Drowsiness
- Dizziness or vision changes
- Weight gain or loss
- Stomach upset
- Headache
- Sleep disturbance

Rarely, Epival can interfere with blood clotting. Watch for unusual bruising and bleeding and report it to your physician promptly.

Epival also has the very rare side effect of liver damage, especially if taken with other anticonvulsants, and bleeding disorders if there is a history of such disorders.

Most of the common side effects of anticonvulsants should subside as your body adjusts to the medication. Notify your doctor if seizures occur or if you develop vomiting, weakness, depression, skin rash, or yellowing of the eyes or skin while taking this medication. When taking an anticonvulsant drug anyone using an oral contraceptive birth control should take care. The combination of these two drugs can decrease the effectiveness in reducing unwanted pregnancies. Anticonvulsant drugs should not be used during pregnancy unless clearly needed. Discuss the risks and

benefits with your doctor. Small amounts of these drugs appear in breast milk. Consult with your doctor before breast-feeding. Inform your doctor if you have any diseases of the liver, kidney, brain, or blood prior to using an anticonvulsant. Be sure to mention if you are taking non-prescription or prescription medication that may cause drowsiness such as tranquilizers, sleeping pills, antihistamines, pain medication (narcotic-containing), or cough-and-cold products. Use of alcohol or other sedative type medications can lead to extreme drowsiness.

### Side Effects of Lamictal:

As a new anticonvulsant-antiepileptic, psychiatrists began titrating (raising the dose) of Lamictal too fast, which made some patients vulnerable to Stevens-Johnson syndrome, a rare yet potentially fatal skin rash. One in 1000 patients contract Stevens-Johnson but the results are seldom fatal if the drug is promptly discontinued. Lamictal has taken its place as a valuable pharmaceutical tool that is now slowly titrated with far fewer incidence of Stevens-Johnson. If you do experience rashes, particularly around mucous-producing areas of your body, contact your doctor immediately.

### Antidepressants

Mood stabilizers are more effective in the treatment of the symptoms of mania rather than depression.  Antidepressants may be prescribed to augment mood stabilizers for symptoms of depression.

The main classification of antidepressants:

- Noradrenergic and specific serotonergic antidepressants
- Remeron
- Selective Serotonin Noradrenergic Reuptake Inhibitors (SSNR's Reuptake Inhibitors) (SSNRI's) - Effexor, Serzone
- Wellbutrin is novel in that it works as a norepinephrine and dopamine modulator (NDM)
- Selective Serotonin Reuptake Inhibitors (SSRI's) Prozac, Paxil, Zoloft, Celexa, Luvox
- Tricyclics - Elavil, Norpramin, Tofranil, Pamelor, etc.
- Monoamine Oxidase Inhibitors (MAOI's) Parnate, Nardil, etc.

For many years doctors prescribed Tricyclics as the treatment of choice despite their many side effects such as dry mouth, lethargy, blurred vision, and constipation.

Tricyclics work by redirecting excitatory chemicals for use in the synapse to stimulate or excite other neurons. For those individuals who did not respond favorably to tricyclic drug therapy, doctors turned to the MAOI' s. MAOI's work by blocking the enzymes that break down chemicals, allowing further activity or excitement to occur in the synapse.

Dr. Nathane Kline first discovered the MAOI's for their antidepressant properties, when he noticed an increase in mental alertness and a mild sense of elation in patients he was treating for tuberculosis. Regardless of their effectiveness in the treatment of depression, MAOI's require some caution because of possible and sometimes serious side effects on blood pressure. Certain foods can increase this risk, and so there are many dietary restrictions. The restrictions may decrease the desirability of this classification of drug.

If you are prescribed an MAOI, you will be given a list of foods, beverages, and other medications to avoid. A secondary generation of antidepressants, called SSRI's, were developed to help those who did not respond well to MAOI's. SSRI's increase the level of serotonin in the brain. Prozac, Paxil, and Zoloft are now considered standard therapy due to their high level of tolerability and safety. SSRIs are also used in the treatment of panic, obsessive-compulsive, and eating disorders.

Common side effects of antidepressants include:

- Drowsiness
- Weakness and fatigue
- Blurred vision
- Difficulty urinating
- Constipation
- Increased heart rate
- Memory impairment
- Dry eyes and mouth
- Feeling dizzy or light-headed

Antidepressants are often prescribed for six months to a year to ensure against a relapse. Discontinuation involves careful and gradual reduction over several weeks or longer.

Abruptly stopping medication can lead to withdrawal symptoms such as intense restlessness and anxiety. For individuals with bipolar disorder, antidepressants can precipitate a manic episode if used without a mood stabilizer.

## Anti-psychotics

Recently, "atypical" anti-psychotics such as Risperdal, Seroquel, or Zyprexa may be prescribed as a supplement to a mood stabilizer to control hallucinations and delusions in severe mania or psychotic depression. Antipsychotic medications work by blocking the flow of the neurotransmitter dopamine and some by blocking dopamine and serotonin.

By changing the flow of these neurotransmitters, medications can reverse some of the symptoms of the disorder.

Antipsychotics can have severe side effects, especially in higher does or after long-term use. Side effects include influences on the nervous system that, in turn, results in tremors, rigidity, or restlessness.

Other common side effects are dry mouth, weight gain, drowsiness, blurred or double vision, or sensitivity to light.

If any severe side effects do occur, contact your doctor. It is important not to stop taking your medication without your doctor's knowledge.

## Atypical anti-psychotics

Anti-psychotic medication has been a treatment for bipolar disorder for many years. These medications are often used in the acute phase of the manic state (to rapidly settle the patient or induce sleep). It is also employed against major depression with psychotic symptoms. The occasional patient would require this class of medication on a long-term basis to remain well. Since the introduction of newer 'meds' with reduced neurological side effects and enhanced effects, these medications are being used more frequently and for longer durations.

The major reason that these older medications were avoided for longer duration treatment was because of the enhanced potential for chronic and occasionally irreversible neurological side effects. The particular chronic side effect was Tardive (late or slow developing), Dyskinesia (abnormal involuntary movements such as tongue writhing, increased mouth and rarely limb movements). Other side effects include dry mouth, hypotension (low blood sugar with dizziness), blurred vision, constipation, and sedation. Acute neurological side effects like dystonia (tight muscles in jaw or face), tremors, akathisia (unpleasant sensation of crawling flesh relieved by constant movement plus difficulty sleeping.

All of these aforementioned side effects are reasons psychiatrists preferred to use benzodiazepines (Valium, Ativan, Rivotril, etc.) or the other older antipsychotics for the short term. Examples of older antipsychotics include Haldol, Chlorpromazine, Mallari, Stelazine, Nozinan, and Trilafon.

The new, or 'atypical' antipsychotic meds boast considerably less potential for neurological side effects, with considerably increased potential for beneficial gains than the older anti-psychotics. Enhanced gains include improved sleep, better cognition (improved memory, concentration, judgement, and reduced impulsivity), plus better stability in terms of mood, energy, and general wellbeing.

These findings were originally suggested by a study done years ago in which a treatment resistant bipolar patient responded favorably to Clozaril. The patient benefit was so significant that the author suggested that bipolar patients actually benefit more than schizophrenics - which the drug was intended for.

Next on the scene was Risperdal. This medication has been shown to be effective for symptoms of psychosis, provide an antidepressant effect, anti-manic effect, better sleep in both manic and depressive states, plus general mood stabilization. The side effect profile is significantly improved over older anti-psychotics but at elevated doses of 4 or 6 mg's, acute neurological side effects (dystonia, tremors, and akathisia can occur). Weight gain is less than with Clozaril and Zyprexa, yet still occurs. At higher doses, Prolactin levels can rise, producing lactation (breast milk production) and menstrual difficulties. Zyprexa emerged as the only antipsychotic medication with approval from the Food and Drug Administration in the United States to be used and advertised as a treatment for bipolar disorder. To achieve this approval, a medication must be subject to numerous studies to prove it is effective and safe in treating this illness. That is not to suggest that a medication without approval is not safe or effective only that, whatever the reason, the pharmaceutical company that owns the medication has not gone through these rigorous studies to get this approval. Zyprexa is effective to anti-manic effect, anti-depressant effect, anti-psychotic effect, sleep effect, and mood-stabilizing effect. From the side effect perspective, Zyprexa can produce significant appetite increase with weight gain in at least 40% of patients (in particular, thin people) and hypotension (low blood pressure) in the elderly.

Medication change and adjustment decisions should always be discussed with

your doctor. The doctor should be receptive to your input. Be frank and assertive when discussing your side effects. These decisions always have the potential for enhanced benefit or fewer side effects, but at the same time, carry the risk of reduced benefit and more side effects. This is because individual differences in people are just as important as the scientific basis and the doctor's experience in making these decisions.

## Anti-anxiety agents

Anti-anxiety agents such as benzodiazepines (Rivotril, etc.) have been used as an adjunct to mood stabilizers to create calming effects or sedation. They decrease the transmission of the nerve signals by blocking the chemicals, especially dopamine, at targeted receptor sites. They offer relatively quick relief from often very disturbing and agonizing symptoms while the individual waits for the other medications to take effect and control other manic or depressive symptoms.

Common side effects include:

- Drowsiness
- Blurred vision
- Muscle weakness
- Slurred speech

Driving or operating machinery can be dangerous because of the drowsiness and blurred vision. As anti-anxiety agents are habit forming and have potentially serious side effects, both patient and doctor must carefully weigh the benefits and risks of using these drugs.

## Treatment Resistance: When Drug Therapy Fails

Most individuals will experience an improved quality of life after they begin drug therapy. However, just like the disorder is experienced differently, the treatment is highly individual. No single treatment will be effective for all people at all times. Some individuals require additional or different medications. It is estimated that 20 percent of treated individuals will not respond to the first treatment tried. Managing the disorder is a lifelong process and requires continuous monitoring. For any treatment to work, you must be actively involved.

## What is treatment resistance?

Treatment resistance is a lack of satisfactory response after a period of time, often after several different options have been tried. There are many reasons why some treatments fail or appear to fail.

## Side effects

Most medications used to treat mood disorders have side effects. Individual reaction and tolerance to side effects differs from one individual to another. Some side effects will diminish after several weeks of treatment. Some side effects may become intolerable, making the treatment worse than the condition. Sometimes a reduction in the dosage can improve the unwanted side effects.

The decision to alter medication must be made in partnership with your mental health professional.

### Insufficient dose

Due to the physiological differences among individuals, dosages required to reach therapeutic levels in one may be different in another. Inadequate levels of the drug may contribute to a feeling that the medication is not working. Increasing the dosage with your doctor's approval might rectify this.

### Inadequate time

During the initial stages of treatment, the treatment may appear to fail. The reality may be that the body has not attained 'therapeutic levels' of the medication. Medications can sometimes take at least a month of continued use to reach appropriate levels in the body. Non-compliance - the most common reason for treatment failure - is due to individuals not taking their medication as prescribed. Medication non-compliance can be a consequence of the disorder since confusion, distractibility, and memory impairment are common in bipolar disorder. Sometimes, if there is a breakthrough manic episode, the individual will feel a false sense of security believing he/she is cured. This is not the case. If a breakthrough depression occurs, hopelessness may be experienced, leaving the individual feeling 'what does it matter'. Their thinking may be impaired, and they need to be encouraged to continue with their medication and to contact their doctor. Some people find that using a dosette (a pill scheduler) helps them to remember to take their medication.

### Adverse drug interactions

Individuals who are taking medications for other conditions may experience an adverse drug interaction when mixed with a psychiatric drug. This can lead to an intolerable side effect or a decrease in the amounts of mood stabilizing drugs in the bloodstream, preventing them from reaching therapeutic levels. Always inform a doctor or dentist of your current medications.

### Non-response

A small number of individuals may not respond to a particular medication. It is important not to give up hope. There are a multitude of alternative treatment strategies. If one doesn't work for you, try another.

### Electroconvulsive therapy (ECT)

Electro Convulsive Therapy (ECT) is a treatment option for individuals who are not responding adequately to drug therapy in the treatment of bipolar disorder and other psychiatric disorders. ECT is the brief application of electric stimulus to the brain that results in a generalized seizure. In the 1940's and 1950's, there were many instances of abuse where ECT was used in high doses and for long periods. This has contributed to the perception of ECT as an abusive instrument of behavioral control.

Current studies have shown that ECT and lithium are equally effective for acute mania. It also appears that if ECT is used for an acute episode of mania, followed by lithium maintenance, there is a decreased risk of relapse, as opposed to treatment with lithium alone.

In studies of ECT as a treatment for depression, ECT clearly immediately reduced the symptoms of depression for the short term, where antidepressant therapy failed.

However, relapse rates in the year following ECT are likely to be high, unless maintenance antidepressants are used. ECT has also been shown to be a highly effective treatment for delusional depression. Its effectiveness is superior to anti-depressant or anti-psychotics administered alone. It is equally effective as taking a combination of an anti-depressant and an anti-psychotic.

### How is ECT performed?

The procedure is generally performed in the recovery room of a hospital or in a specialized room. An intravenous tube is inserted to provide any medication that may be required during the procedure. Your vital signs are taken initially and throughout the procedure. You will be given a general anesthetic. A paralyzing agent called succinylcholine is administered to prevent a generalized seizure. Electrodes are then applied to your head with conducting jelly and a brief shock is administered.

### What are the risks of ECT?

ECT should be administered to individuals where it is clearly indicated. Risks and benefits must be weighed carefully against the risks of other treatment options. Over the years, safer methods of administration have been developed, including short-acting anesthetics, use of muscle relaxants, and adequate oxygenation. This has decreased the mortality rate associated with ECT to 4 deaths per 100,000. This means that there is a marginally greater increase in risk that that of any procedure requiring anesthetics. The seizure experienced may cause various complications such as vertebral compression fractures.

Immediately after regaining consciousness from the treatment, the individual will experience confusion, transient memory loss, and headaches. The time it takes to fully recover consciousness varies from one individual to another. The loss of short-term memory can be troublesome and can often persist after the termination of a normal course of ECT. Severity of the memory loss is often attributed to the number of treatments, type of electrode placements, and nature of the electric stimulus. Some individuals report difficulties remembering events, on average, 6 months prior to receiving ECT and for 2 months after ECT. The perception of the memory loss varies widely from one individual to another. The ability to learn and retain new information is also adversely affected for a time following administration of ECT for several weeks following its termination.

Normal functioning typically returns after a period.