

## A Complete Review on: Bipolar Disorder and its Health Complications

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### ABSTRACT

Bipolar disorder is mainly intended with chronic psychiatric conditions which characterized by alternating episodes of depression and mania that leads to significant mood, behaviour and energy changes in Humans being. It's caused due to genetic, neurobiological, and environmental factors and is a leading cause of mental disability worldwide. Treatment involves a combination of mood-stabilizing medications and psychosocial interventions like therapy and psycho-education, though diagnosis is often delayed due to symptom overlap with other disorders and lack of insight from patients. Bipolar disorder is associated with significant physical health complications, including increased rate of obesity, diabetes, cardiovascular disease, and metabolic syndrome, which contribute to a significantly reduced life expectancy. Patients also face higher risks of substance use disorders and suicide, with annual suicide rates substantially exceeding the general population. These complications are driven by a combination of genetic, neurobiological, and environmental factors, highlighting the need for integrated care to address both psychiatric and physical health needs.

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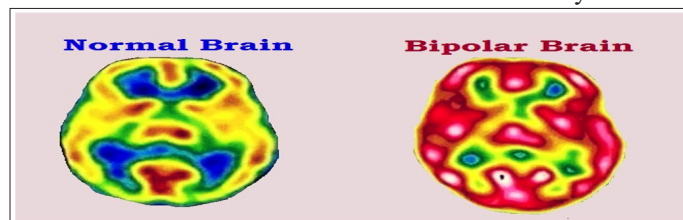
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### Introduction

Bipolar disorders are chronic mental illnesses encompassing bipolar I and bipolar II disorders, characterized by the presence of acute & chronic mood change and related episodes (manic, hypomanic, depressive, or mixed), with inter-critical periods of absent or sub-syndrome symptomatology. Bipolar disorders that affect >1% of the global population. Bipolar disorders are causes of disability in young people as they can lead to perceptible and functional behavioral social aspect damage and increased mortality, particularly from suicide and cardiovascular disease in humans. Psychiatric comorbidities are common in patients and might also contribute to increased mortality. Bipolar disorder is also associated with significant mortality threat, with approximately 25 percent of patients struggling pervasively and 11 percent of patient's completing. Bipolar disorders are common, disabling, recurrent mental health conditions of variable severity.

Onset is often in late childhood or early youth. Patients with bipolar disorders have higher rates of other mental health disorders such as anxiety, confusion in state of mind disturb and departure from current reality and facts. Treatment of mood episodes depends on the presenting phase of illness: mania, hypomania, mixed state, depression, or maintenance. Psychotherapy and mood stabilizers, such as lithium, sodium valproate, anticonvulsants, and antipsychotics, are first-line treatments that should be continued indefinitely because of the risk of relapse. Mono-therapy like antidepressants is contraindicated in manic episodes in certain cases differ from patient to patient. Maintenance therapy for patients for longer period of time or some time throughout life is non-optional and substance abuse, evaluating & Monitoring adherence to treatment, and distinguishing metabolic complications of pharmacotherapy. Active management of body weight reduces complications and improves lipid control by life style modification. Patients and their support systems should be educated about mood relapse, suicidal ideation, and the efficiency of early intervention to reduce further complications.



**Figure:** Mood Activity of Normal Brain and Bipolar Brain

### Risk Factors Associated with Bipolar Disorder

Mainly cause of bipolar disorder is somewhat unknown, but it is believed to result from a combination of biological factors such as genetics and brain differences, in case of environmental factors such as stress and trauma & too much burning desire at work place, and lifestyle factors like substance use and sleep disturbance. While family history significantly increases risk that includes death of emotionally touched family member due to accident or certain

some kind of heartfelt disease or disorder, many genes are involved for arising bipolar and not everyone with a genetic predisposition will develop the disorder. Brain chemistry, particularly imbalances in neurotransmitters like dopamine and serotonin, also plays a crucial role. Additionally, hormonal factors, such as those related to thyroid and gonadal hormones, and physical factors like head trauma and substance abuse, can influence the development or recurrence of the disorder.

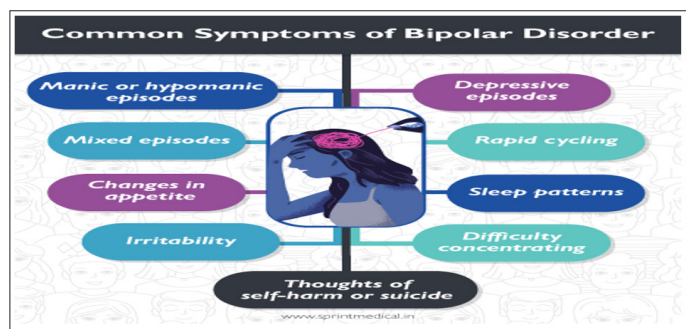
There is a strong hereditary component to bipolar disorder, with a higher risk for individuals who have a parent or sibling with the condition. In Brain Chemistry Imbalances in brain chemicals, particularly monoaminergic neurotransmitters like dopamine and serotonin, are thought to be involved in the disorder.

Sr. No	Factor	Actual Causes & risk for Bipolar Disorder
1	Genetics	Imbalances in brain chemicals, particularly monoaminergic neurotransmitters like dopamine and serotonin
2	Neurobiological	Specific genetic loci and altered intracellular signaling systems that can increase the risk.
3	Hormonal	Thyroid hormones and sex hormones (like estrogen) can influence mood regulation
4	Environmental	Stressful Life Events like Significant stressors, including relationship breakups, extreme work stress, financial problems
5	Other Contributing Factors	Age, gender, Head Trauma

Table for Factor consider in Bipolar Disorder

### Health Complications

Bipolar disorder is associated with significant physical and mental health complications, including anxiety disorders, substance use disorders, and psychosis. It also increases the risk for physical health issues like cardiovascular disease, diabetes, obesity, and sleep problems. Lifestyle factors such as poor diet, lack of exercise, and insomnia, as well as the effects of some medications, contribute to these physical health complications. The condition significantly impacts daily functioning and social relationships and is a leading cause of disability worldwide, significantly reducing life expectancy.



### Common Symptom

#### Anxiety Disorders

A high percentage of people with bipolar disorder also experience anxiety disorders. Bipolar disorder is a clinically and socially

challenging problematic health condition. In case multiple mood states and behavioural change is occur in patient. Bipolar disorder assumed as a family of related disorders that share core features of mood or affective variation, impulsivity, propensity toward substance abuse, and predisposition to other psychiatric conditions. Most patients who have bipolar disorder have facing anxiety disorder likely. These include generalized anxiety disorder, social fright, panic disorder. A Anxiety disorders is develop combination with a mood disorder, are associated with an increased risk of recklessness thought and psychosocial dysfunction.

#### Substance Use Disorders

Alcohol and drug misuse is common and can worsen bipolar disorder symptoms. Substance use disorders are highly predominant in bipolar disorder and measurably affect clinical outcomes. The risk factor for addictions, both behavioural, such as gambling and substance use disorders. Also a strong association between alcohol and nicotine the abuse of other drugs, such as cocaine, amphetamines, opiates, cannabis, and prescription medications is also an important health concern in people with this disorder.

#### Psychosis

Severe manic or depressive episodes can include symptoms of psychosis, such as hallucinations or delusions. ADHD: Attention-deficit/hyperactivity disorder (ADHD) often co-occurs with bipolar disorder. Psychosis can be a severe complication of bipolar disorder, occurring during extreme manic or depressive episodes and involving symptoms like delusions (false beliefs) and hallucinations (false perceptions). The psychotic symptoms typically align with the person's mood, with grandiose delusions during mania and beliefs of ruin during depression. Psychosis in bipolar disorder can lead to a loss of touch with reality and may increase the severity of the illness, requiring professional treatment, which can include medication, therapy, and support programs.

#### Cardiovascular Disease

People with bipolar disorder have a higher risk of heart disease, potentially linked to factors like obesity, diabetes, and metabolic syndrome. Patient of this disorder are linked with higher risk for heart diseases, such as heart attacks and strokes. Certain lifestyle related factors, common among people with bipolar disorder, such as smoking, poor diet and lack of exercise, can cause unwanted stress, which might be damage blood vessels and increase the chances of altering of heart related working functions. The relationship between bipolar disorder and heart disease is too much complex as certain drug enhances obesity & lethargy in bipolar patient that can affect heart pathophysiology. So stress and associated things can disrupt normal heart functions is important.

#### Diabetes & Metabolic Syndrome

There is a greater risk of developing metabolic syndrome and type II diabetes. Bipolar disorder is associated with a higher risk of metabolic syndrome, including conditions like type 2 diabetes, obesity, hypertension, and dyslipidaemia, due to shared risk factors and medication side effects. Metabolic syndrome and its components can worsen the course of bipolar disorder, increase the risk of cardiovascular disease, and contribute to premature mortality. Lifestyle changes, proactive monitoring by healthcare providers, and integrated care approaches are crucial for managing these intersecting health conditions.

#### Obesity

High levels of weight gain are a common problem for adults with bipolar disorder, in part due to medication side effects.

Obesity is more prevalent in people with bipolar disorder due to a combination of illness-related factors (like changes in mood and behavior during manic or depressive episodes), treatment-related factors (medications that cause weight gain), and lifestyle factors (such as poor diet, lack of physical activity, and substance abuse). These factors interact, creating a complex cycle that increases the risk of obesity, which, in turn, can worsen psychiatric symptoms, decrease treatment adherence, and lead to serious physical health complications.

### Insomnia

This is nothing but Sleep problems are a frequent challenge during both manic and depressive episodes it is a common symptom during depressive episodes and can also occur during manic or mixed episodes. Sleep disturbances are a core characteristic of bipolar disorder, persisting even in the periods between mood episodes. Insomnia can appear before a mood episode begins, serving as a vital early indicator of a potential mood shift.

### Respiratory Disease

People with bipolar disorder face an elevated risk of respiratory conditions such as Chronic Obstructive Pulmonary Disease (COPD), asthma, and pneumonia compared to the general population. This increased risk is linked to factors like higher rates of smoking, limited access to healthcare, and lifestyle issues. Bipolar disorder is associated with increased mortality, with respiratory diseases being a significant contributing factor after suicide.

### Social Dysfunction

Bipolar disorder can lead to strained relationships, problems at work or school, and difficulty managing daily tasks. Euthymic patients with bipolar disorder present inhibited and over attentive behaviour in relation to other people and their environment. This behaviour might have a negative impact on their level of social functioning and quality of life.

### Suicide Risk

The condition carries a significant risk of suicide and suicide attempts as due to lack or poor self-esteem and self-respect. Patient of bipolar mainly face issue like confusion, lower confident level goal less in the life. Mainly understanding moralizing and communication with appropriate motivation bipolar faced patient can improve and overcome issue associated with suicide related risk.

### Conclusion

Thus we can conclude that in Bipolar disorder various health constrain interlinked and complex issue is arise but appropriate handling patient with absolute medication adherence help to improve patient lifestyle and life expectancy. In some cases bipolar patient associated medication & treatment causes severe side effect on health and that may contribute impacted certain health complication which non avoidable. For improve good health patient need to make sure about lifestyle modification doing regular exercise yoga pranayama and moreover medication along with meditation.

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