



## About bipolar disorder

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- Bipolar disorder is a chronic mental health condition which results in strong changes in mood and energy levels<sup>1</sup>.
- People with bipolar disorder (sometimes called "manic depression") can have depressive, and manic or hypomanic episodes, that can last up to a week or



more, affecting their thoughts and behaviour<sup>1</sup>.

- Bipolar disorder requires long-term management, and severely affects an individual's ability to function in their daily lives<sup>1</sup>.
- Globally, about 2 per cent of the population experience bipolar disorder during their lifetime<sup>2</sup>.
- In Australia, it is estimated that 1.8 per cent of males and 1.7 per cent of females have had bipolar disorder in the previous 12 months<sup>3</sup>.
- Bipolar disorder is the ninth leading contributor to the burden of disease and injury in Australia among females aged 15-24 years, and the tenth leading contributor for males of the same age<sup>4</sup>.
- Australian research has shown that from the average age of symptom onset (17.5 years), there was a delay of approximately 12.5 years before a diagnosis of bipolar disorder was made<sup>5</sup>.

#### Causes & risk factors for bipolar disorder<sup>6</sup>

# While the exact causes of bipolar disorder are unknown, factors believed to play a role in the development of bipolar disorder, and its onset include<sup>6</sup>:

- $\circ$   $\,$  Genetic factors, which account for over 70 per cent of risk
- o Abnormal neurotransmitter chemistry in the brain
- o Environmental factors, including stressful life events and seasonal factors
- o Certain medications and certain illicit substances
- $\circ$   $\;$  The perinatal stage of pregnancy.

#### There are different types of bipolar disorder, including<sup>1</sup>:

- **Bipolar I disorder:** At least one manic episode required for diagnosis. Major depressive episodes are typical, but not necessary for diagnosis. Bipolar I affects men and women equally. Bipolar I is defined by manic episodes that last at least seven days, or by manic symptoms that are so severe that the person requires immediate hospital care<sup>2</sup>.
- **Bipolar II disorder:** At least one hypomanic (highs and lows that are less extreme than mania<sup>9</sup>) episode and one major depressive episode required for diagnosis. There is no instance of a manic episode. Bipolar II is more common in women<sup>2</sup>.
- Cyclothymic disorder: A milder form of bipolar disorder in which moods are not as extreme<sup>2</sup>. People with cyclothymic disorder experience chronic fluctuations in their mood over at least a two-year period. Cyclothymic disorder is characterised by hypomania (mild-to-moderate mania) and periods of depressive symptoms, with very short periods (no more than two months) of normality in between. The duration of the depressive symptoms are shorter, less severe and not as regular as bipolar disorder<sup>1,8</sup>.
- Other specified and unspecified bipolar and related disorder: The mood changes experienced by people with bipolar disorder differ from one person to the next. This diagnosis is defined by bipolar disorder symptoms that do not correlate with any of the three categories listed above<sup>7,8</sup>.

#### Warning signs of bipolar disorder include:

#### **Depressive episodes**<sup>1</sup>:

- Feelings of sadness or hopelessness
- Loss of interest in usually pleasurable activities
- o Withdrawal from family and friends
- Sleep problems (often excessive sleep)
- Loss of energy, feeling exhausted
- Physical slowing
- Low self-esteem
- $\circ$  Feelings of guilt
- Problems concentrating
- Suicidal thoughts.

#### Manic episodes<sup>1</sup>:

- Feeling incredibly 'high' or euphoric
- o Delusions of self-importance
- High levels of creativity, energy and activity
- o Getting much less sleep, or no sleep
- Poor appetite and weight loss
- Racing thoughts, speech and talking over people
- Highly irritable, impatient or aggressive
- Inappropriate sexual activity or risk taking
- o Dressing more colourfully and being less inhibited
- o Impulsiveness and making poor choices in spending or business
- o Grand and unrealistic plans
- Poor concentration, easily distracted
- Delusions, hallucinations.
- Bipolar disorder usually requires a long-term treatment plan often involving medication, as well as psychological treatment and lifestyle approaches<sup>9</sup>.
- Bipolar disorder can be difficult to diagnose, because<sup>1</sup>:
  - Disease onset is often marked by a depressive period and can be misdiagnosed as clinical depression.
  - Depressive symptoms are common in bipolar disorder usually more prevalent than hypomania or manic symptoms.
  - 'Mixed mood' episodes are common. These might obscure detection of mania and hypomania, as people report more depressive symptoms when seeking treatment.
- Treatment of bipolar disorder may involve two types of management; acute management and long-term management<sup>9</sup>.
  - Acute management aims to stabilise someone during a manic or depressive episode. Medications may
    include mood stabilisers and antipsychotics. Electroconvulsive therapy (ECT) may also be used when
    treatment is not effective, and in those experiencing depression with psychotic features<sup>9</sup>.
  - Long-term management involves maintenance and prevention of relapse, which may include medications such as mood stabilisers, anti-depressants and antipsychotics, together with counseling, cognitive behavioural therapy (CBT) and wellbeing plans<sup>9</sup>.
- Health professionals who treat people living with bipolar disorder include GPs, psychiatrists, psychologists, mental health nurses, mental health social workers, and counsellors.

#### The Australian Genetics of Bipolar Disorder Study

- Australian researchers are joining forces with clinicians, high profile mental health advocates and study participants nation-wide to call for 5,000 Australians aged 18 and above, who have been treated for bipolar disorder, to volunteer for the world's largest and most rigorous investigation into the serious and potentially life-threatening illness<sup>1</sup>.
- The Australian Genetics of Bipolar Disorder Study aims to identify the genes that predispose people to bipolar disorder, in order to develop new treatments, and ultimately find a cure for the disorder<sup>1</sup>.

- This groundbreaking research should allow us to identify up to 100 genes that influence a person's risk of developing bipolar disorder.
- Cracking the genetic code, will enable us to develop new, and more effective, personalised treatments that target the problem directly.
- Many international studies to date have explored an individual's genetic predisposition to bipolar disorder. However, only a handful of the specific predisposing genes have been identified, and there are many more to be found<sup>1</sup>.
- Identification of the genes that predispose individuals to bipolar disorder will revolutionise future research into causes, treatment and prevention of the illness<sup>1</sup>.
- Study researchers will analyse DNA from saliva samples to identify specific genes associated with bipolar disorder<sup>1</sup>.
- Before analysis can begin, DNA is extracted from the saliva sample and genotyped to provide a read out of each participant's genetic code. The analysis process, known as a 'genome-wide association scan' (GWAS), involves comparing the genotypes of people who have experienced bipolar disorder to the genotype of those who have never experienced the disorder<sup>1</sup>.
- The study will allow the researchers to identify genetic factors that determine why some people experience bipolar disorder, while others do not, why some people living with bipolar disorder respond to certain treatments, while others do not, and why some people experience side-effects, while others do not<sup>1</sup>. This knowledge will be used to improve existing treatments and to develop new treatments for bipolar disorder<sup>1</sup>.

### **Study participation**

- Participating in this study could make a genuine contribution to solving bipolar disorder<sup>2</sup>.
- Study participation is strictly confidential. All patient information provided will be maintained in accordance with the Commonwealth Privacy Act (1988) and National Health and Medical Research Council (NHMRC) Guidelines<sup>1</sup>.
- Participating in the study involves completing a simple 20-minute-long online survey<sup>1</sup>.
- Permission will be sought from participants for access to some of their Medicare and Pharmaceutical Benefits Scheme (PBS) history (although this consent is not critical to participation)<sup>1</sup>.
- After completing the study, participants may be asked to donate a saliva sample, from which researchers can extract their DNA to identify specific genes associated with bipolar disorder<sup>1</sup>.
- Researchers will send a saliva collection kit together with a pre-paid return envelope to selected participants<sup>1</sup>.
- QIMR Berghofer will biobank DNA from saliva samples for immediate and future genetic analysis<sup>1</sup>.
- To volunteer, head to www.geneticsofbipolar.org.au or email gpd@qimrberghofer.edu.au.

If you are living with or experiencing bipolar disorder, and experiencing a state of mania or hypomania, it is important to contact a health professional immediately.

Professional patient support services that offer 24/7 helpline services in Australia include:

- Beyond Blue: 1300 22 4636
- LifeLine: 13 11 14
- Men's Line Australia: 1300 78 99 78
- Kids Help Line: 1800 55 1800.

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For more information, please contact Kirsten Bruce or Holly Hamilton from VIVA! Communications on 0401 717 566 / 0434 799 839.

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