



# NeuRA

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## SCHIZOPHRENIA Factsheet

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### What is olanzapine?

Second generation antipsychotics (sometimes referred to as 'atypical' antipsychotics) such as olanzapine are a newer class of antipsychotic medication than first generation 'typical' antipsychotics. Second generation antipsychotics are effective for the positive symptoms of schizophrenia. It is sometimes claimed that they are more effective than first generation antipsychotics in treating the negative symptoms of schizophrenia, although the evidence for this is weak. Negative symptoms include a lack of ordinary mental activities such as emotional expression, social engagement, thinking and motivation, whereas positive symptoms include the experiences of perceptual abnormalities (hallucinations) and fixed, false, irrational beliefs (delusions). Second generation antipsychotics may also cause less extra-pyramidal side effects. These include dyskinesias such as repetitive, involuntary, and purposeless body or facial movements, Parkinsonism (cogwheel muscle rigidity, pill-rolling tremor and reduced or slowed movements), akathisia (motor restlessness, especially in the legs, and resembling agitation) and dystonias such as muscle contractions causing unusual twisting of parts of the body, most often in the neck. These effects are caused by the dopamine receptor antagonist action of these drugs.

### What is the evidence for olanzapine?

High quality evidence suggests olanzapine results in greater clinical response and is equally effective at retaining patients in treatment as placebo. Moderate quality evidence suggests no differences between olanzapine and placebo in any adverse effect. Moderate quality evidence suggests no differences in clinical response between olanzapine and first generation antipsychotics in general. Compared to first generation antipsychotic haloperidol, moderate to low quality evidence suggests olanzapine may improve mental state and retain more patients in treatment. Moderate to high quality evidence suggests olanzapine may result in less extrapyramidal side effects than first generation antipsychotics in general. Compared to second generation antipsychotic risperidone, high quality evidence suggests no differences in global state or symptom severity. Fewer people left the study early with olanzapine than with risperidone, aripiprazole, quetiapine, ziprasidone, or clozapine, but not with amisulpride or paliperidone. Olanzapine is associated with fewer relapses than risperidone, with no differences in relapse rates when compared to paliperidone. Moderate to high quality evidence suggests olanzapine improves general mental state more than aripiprazole, quetiapine, or ziprasidone, but not amisulpride or clozapine. Olanzapine is associated with fewer hospital admissions than quetiapine and ziprasidone, but more hospital admissions to avoid suicide than clozapine. Moderate and high quality evidence suggests olanzapine may result in fewer extrapyramidal symptoms and more weight gain than other second generation antipsychotics, including risperidone, paliperidone, ziprasidone, amisulpride, aripiprazole or quetiapine. Related effects such as increases in glucose and cholesterol levels are also more frequent with olanzapine. Olanzapine also increased prolactin more than aripiprazole, clozapine and quetiapine, but less so than risperidone. Compared to clozapine, olanzapine altered prolactin levels, had fewer participants with decreased white blood cells, and resulted in less hypersalivation and less seizures. Compared to risperidone and paliperidone, olanzapine showed lower rates of insomnia and sexual dysfunction.

For more information see the technical table

### HOW YOUR SUPPORT HELPS

We are able to make significant advances due to the generosity of countless people. Your donation allows us to continue to work towards transforming lives. For information on how you can support our research, phone **1300 888 019** or make a secure donation at [neura.edu.au/donate/schizophrenia](http://neura.edu.au/donate/schizophrenia).



## NeuRA

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*NeuRA (Neuroscience Research Australia) is one of the largest independent medical and clinical research institutes in Australia and an international leader in neurological research.*

*Diseases of the brain and nervous system pose the greatest health, economic and social burden of any disease group because they are chronic, debilitating and have no known cures.*

*Medical research is the cornerstone of efforts to advance the health and wellbeing of families and the community. Our dedicated scientists are focussed on transforming their research into significant and practical benefits for all patients.*

*While we hope you find this information useful, it is always important to discuss any questions about schizophrenia or its treatment with your doctor or other health care provider.*