## Can exercise help in the management and treatment of clinical depression?

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## Quick facts

- The World Health Organisation states depression is the 4<sup>th</sup> leading contributor to the worldwide burden of disease
- By 2020 depression will be the 2<sup>nd</sup> most leading contributor to premature death worldwide
- 60% of suicides result from clinical depression
- Depression causes greater physical impairment than compared to those with a chronic medical illness



Serotonin is strongly associated with depression. Decreased levels of this neurotransmitter is strongly implicated as the underlying pathological process behind depression.



Exercise increases the production and secretion of serotonin. This is why researchers focus on the levels of serotonin when investigating the affect of exercise on depression

## The literature

The majority of studies conducted consist of two groups of volunteers. One active group & one sedentary group. Their serotonin levels are checked prior to the commencement of the study & once again at the end then a comparison is made between the two groups to ascertain if there is any significant change in serotonin levels.

- One study states that their experiment group experienced a 33.6% decrease in depressive symptoms & claim that their results indicated a significant increase of serum serotonin levels post exercising.
- Evidence suggests that just 30 minutes of physical activity daily can decrease the severity of depression & in some cases exercise was found to be as effective as medication depending on the severity of the depression.
- Another study conducted this time conducted on volunteers with paraplegia states that post exercise they experienced a significant increase of serotonin.

However, it is clear that further studies and research is required before the effects of exercise on depression and serotonin levels can be fully understood. It is clear though that despite this lack of knowledge, exercise is beneficial to those with depression for a number of reasons.

## In conclusion

Healthcare professionals should be screening all clients for signs of depression & encouraging them to partake in some of physical activity.

Despite the limited scientific proof of the effects of exercise on serotonin levels there has seen to be added benefits to all aspects of life that can relate to depression.

- Choosing to exercise may help to alleviate the feelings of helplessness associated with depression & assist in regaining some control.
- In the older adult exercise may help to limit or eradicate social isolation depending on the form of exercise chosen. Team sports or fitness classes should be encouraged.
  - It may increase an individuals self esteem



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