

# MOVE IT:

## Exercise and Your Kidneys

In CKD patients, studies have shown that both resistance (exercise with weights) and aerobic (exercise such as swimming or running) training can improve the following: <sup>1</sup>

- Overall physical function
- Quality of life
- Symptoms of depression
- Patient survival
- Number of hospitalizations

Physical inactivity is linked to a **DECLINE** in kidney function among older adults.

### Summary of findings:

- Exercise results in improved physical performance and function in patients with CKD. <sup>2</sup>
- No study has reported worsening of kidney function as a result of exercise. <sup>3</sup>
- More physical activity may actually lead to less decline in kidney function. <sup>4</sup>
- **Evidence suggests that the risk of remaining inactive is higher than the risk of exercising.** <sup>5</sup>

Physical activity may help limit chronic kidney disease (CKD) progression. This is one of the things you can do to help change the course of your disease!



### Goals of exercise:

- Enhance cardiovascular health (heart & blood vessels)
- Preserve kidney function
- Improve your physical and emotional well-being

**How?** Walking regularly or taking the stairs are examples of how to get more exercise for people who are just getting started.

Please talk to your kidney doctor about how to incorporate exercise into your life.

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### Evidence of Exercise benefits in CKD:

A small, prospective study showed that more physical activity led to less decline in kidney function.<sup>6</sup>

- People with >150 minutes of activity per week had the lowest rate of kidney function decline.
- Each 60-minute increment of activity per week was linked to 0.5% slower decline in kidney function per year.



CKD is associated with a higher risk of cardiovascular disease. Part of this risk is due to a complex state of immune-system dysfunction that leads to inflammation.<sup>7</sup>

- A six-month regimen of walking just 30 minutes per day five days a week was linked to measureable anti-inflammatory effects in the body.

There is ongoing research to examine the phenomenon of “crosstalk” between skeletal muscle and kidneys.<sup>8</sup>

- Can skeletal muscle affect growth and regenerative properties in damaged kidneys?
- This paradigm is actively being pursued, with basic research in support of this finding.

\* Individuals should seek advice from their physicians or qualified healthcare professional regarding medical care, treatment options etc.

### References:

- <sup>1</sup> Clin J Am Soc Nephrol. Physical activity & Hospital survival in CKD. 10/14 vol 9(10).
- <sup>2</sup> Am J Kidney Dis. 2012;59(1):126-134.
- <sup>3</sup> Ibid.
- <sup>4</sup> J Am Soc Nephrol 25: 399-406, 2014
- <sup>5</sup> Clin J Am Soc Nephrol. Physical activity & Hospital survival in CKD. 10/14 vol 9(10).
- <sup>6</sup> J Am Soc Nephrol 25: 399-406, 2014
- <sup>7</sup> J Am Soc Nephrol. Exercise & Inflammation in CKD. 9/14 vol 25(9)
- <sup>8</sup> J Am Soc Nephrol 25: 2681-2683, 2014.



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