

ABOUT Lung Games International Inc.

Lung Games International Inc. (“LungGames”) is an innovative Canadian serious gaming company with roots in the Netherlands, that has pioneered *breathing-powered interactive gaming™* to support inclusive respiratory health in children and adults.

Our vision is a world where lung health is accessible, affordable and fun for everyone. Our mission is to transform respiratory health through engaging and interactive games. Our preventative digital approach, with the family in control, builds a strong foundation for system redesign for better health outcomes and more efficient resource use.

SPARKY™

Sparky™ is a fun, but serious game for 3 – 12-year-olds. The game leverages the physical and brain development of young children to teach the breathing techniques needed for spirometry, the gold standard for measuring lung function, through interactive play. As children play, they are learning to breathe deeply and correctly for spirometry through guided breathing activities, while lung function is tracked in real time. Healthcare professionals now have a tool to teach children the breathing techniques needed for diagnosis of breathing problems, including asthma, and parents can monitor their children anytime and anywhere.

Currently, children under 6 years of age cannot be objectively diagnosed or monitored for asthma. Spirometry can detect increasing airway restriction 10 – 14 days before an asthma flare-up ([Skolnick et al](#)), providing a window of opportunity to work with healthcare providers to intervene beforehand. Sparky™ now makes spirometry accessible to young children, where objective measurement tools were previously not readily available.

