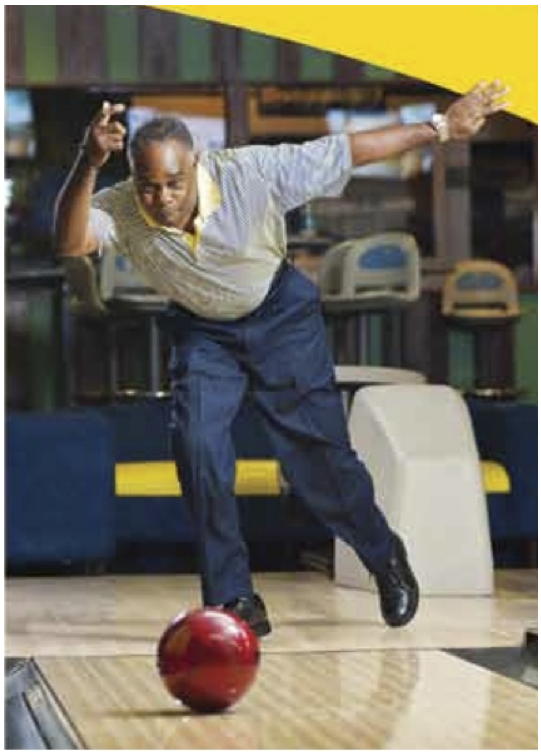
'I walk a whole lot better'

Don McElroy, 52, of Trotwood, barely remembers life without an artificial left leg – he's had one since age 5. But in 2008, he told his prosthetist, Tracy Slemker of Dayton Artificial Limb Clinic, that walking long distances was getting tougher.



"Fatigue hits, and I have to rest," Don said. "It just takes more energy to move that left leg."

That's a problem for Don, who plays tennis and basketball, rides a stationary bike, and takes on yard work and house projects. Plus, he's a serious bowler.

"I have always competed with the best of the bowlers," said Don, who's shot 28 perfect games "and six 800 series, with 877 my highest." That score is close to a perfect 900 series – three perfect games in a row.

So the clinic and its sister company, Prosthetic Design, Inc. (PDI) of Clayton, began research and development (R&D) on a new prosthesis for Don. He's among the world's most difficult patients to fit, Tracy said, since his amputation was performed on an atypically shaped limb

because of a congenital condition also affecting his hip joint and surrounding muscles.

“Improvements came in small bits and pieces and accumulated into something much bigger,” Tracy said. “You don’t fit a patient like Donny off the shelf. Everything was custom.”

Staff marveled at Don’s patience. “He never once got frustrated,” said Rob Hoskins, the prosthetic engineer and clinical consultant handling the parts fabrication, working closely with PDI staff.

Finally, after 150 appointments; hundreds of liners, seals and socket iterations; and almost 50 people working on the solution, a breakthrough came in 2011.

“I walk a whole lot better in this new one – the dip on my left side is just about gone. I don’t feel like I exert as much energy to walk. And the cosmetics and appearance? They play a big part,” said Don, who had to wear a belt with his old prosthesis. “Now I can walk down inclines without it catching, and
there are more safety features.”

His innovative prosthesis works with elevated vacuum at a low pressure without a lock, Rob said. Final socket modifications are under way, and Don is looking forward to wearing his new prosthesis soon.

Tracy said typical prosthetic patients – those with diabetes, heart conditions or kidney disease – don’t take three years to fit, but they will benefit from all the R&D that went into Don’s prosthesis. A report on his case will run in the March 2012 issue of The O&P EDGE, an industry publication.

“I know all this is going to help others in the long run,” Don said. “If they can fit me, they can pretty much fit anybody.”