

Growing Spine Study Group's peer-reviewed publications as of April 2016:

1. Akbarnia BA, Marks DS, Boachie-Adjei O, Thompson AG, Asher MA. Dual growing rod technique for the treatment of progressive early-onset scoliosis: A multicenter study. *Spine (Phila Pa 1976)*. 2005 Sep 1;30(17 Suppl):S46-57.
2. Thompson GH, Akbarnia BA, Kostial P, Poe-Kochert C, Armstrong DG, Roh J, Lowe R, Asher MA, Marks DS. Comparison of single and dual growing rod techniques followed through definitive surgery: A preliminary study. *Spine (Phila Pa 1976)*. 2005 Sep 15;30(18):2039-44.
3. Thompson GH, Akbarnia BA, Campbell RM Jr. Growing rod techniques in early-onset scoliosis. *J Pediatr Orthop*. 2007 Apr-May;27(3):354-61.
4. Akbarnia BA, Breakwell LM, Marks DS, McCarthy RE, Thompson AG, Canale SK, Kostial PN, Tambe A, Asher MA; Growing Spine Study Group. Dual growing rod technique followed for three to eleven years until final fusion: the effect of frequency of lengthening. *Spine (Phila Pa 1976)*. 2008 Apr 20;33(9):984-90.
5. Mahar AT, Bagheri R, Oka R, Kostial P, Akbarnia BA. Biomechanical comparison of different anchors (foundations) for the pediatric dual growing rod technique. *Spine J*. 2008 Nov-Dec;8(6):933-9. Epub 2007 Dec 21.
6. Sponseller PD, Thompson GH, Akbarnia BA, Glait SA, Asher MA, Emans JB, Dietz HC 3rd. Growing rods for infantile scoliosis in Marfan syndrome. *Spine (Phila Pa 1976)*. 2009 Jul 15;34(16):1711-5.
7. Sponseller PD, Yang JS, Thompson GH, McCarthy RE, Emans JB, Skaggs DL, Asher MA, Yazici M, Poe-Kochert C, Kostial P, Akbarnia BA. Pelvic fixation of growing rods: comparison of constructs. *Spine (Phila Pa 1976)*. 2009 Jul 15;34(16):1706-10.
8. Sankar WN, Skaggs DL, Emans JB, Marks DS, Dormans JP, Thompson GH, Shah SA, Sponseller PD, Akbarnia BA. Neurologic risk in growing rod spine surgery in early onset scoliosis: Is neuromonitoring necessary for all cases? *Spine (Phila Pa 1976)*. 2009 Aug 15;34(18):1952-5.
9. Yang JS, McElroy MJ, Akbarnia BA, Salari P, Oliveira D, Thompson GH, Emans JB, Yazici M, Skaggs DL, Shah SA, Kostial PN, Sponseller PD. Growing rods for spinal deformity: characterizing consensus and variation in current use. *J Pediatr Orthop*. 2010 Apr-May;30(3):264-70.
10. Bess S, Akbarnia BA, Thompson GH, Sponseller PD, Shah SA, El Sebaie H, Boachie-Adjei O, Karlin LI, Canale S, Poe-Kochert C, Skaggs DL. Complications of growing-rod treatment for early-onset scoliosis: Analysis of one hundred and forty patients. *J Bone Joint Surg Am*. 2010 Nov 3;92(15):2533-43. Epub 2010 Oct 1.
11. Elsebaie HB, Yazici M, Thompson GH, Emans JB, Skaggs DL, Crawford AH, Karlin LI, McCarthy RE, Poe-Kochert C, Kostial P, Akbarnia BA. Safety and efficacy of growing rod technique for pediatric congenital spinal deformities. *J Pediatr Orthop*. 2011 Jan-Feb;31(1):1-5.
12. Sankar WN, Skaggs DL, Yazici M, Johnston CE 2nd, Shah SA, Javidan P, Kadakia RV, Day TF, Akbarnia BA. Lengthening of dual growing rods and the law of diminishing returns. *Spine (Phila Pa 1976)*. 2011 May 1;36(10):806-9.
13. McElroy MJ, Shaner AC, Crawford TO, Thompson GH, Kadakia RV, Akbarnia BA, Skaggs DL, Emans JB, Sponseller PD. Growing rods for scoliosis in spinal muscular atrophy: Structural effects, complications, and hospital stays. *Spine (Phila Pa 1976)*. 2011 Jul 15;36(16):1305-11.
14. Yang JS, Sponseller PD, Thompson GH, Akbarnia BA, Emans JB, Yazici M, Skaggs DL, Shah SA, Salari P, Poe-Kochert C; Growing Spine Study Group. Growing rod fractures: risk factors and opportunities for prevention. *Spine (Phila Pa 1976)*. 2011 Sep 15;36(20):1639-44.
15. Schroerlucke S, Akbarnia B, Pawelek J, Salari P, Mundis G, Yazici M, Emans J, Sponseller P. How Does Thoracic Kyphosis Affect Patient Outcomes in Growing Rod Surgery? *Spine*. 2012 Jul 1;37(15):1303-9.
16. McElroy MJ, Sponseller PD, Dattilo JR, Thompson GH, Akbarnia BA, Shah SA, Snyder BD; Growing Spine Study Group. Growing rods for the treatment of scoliosis in children with cerebral palsy: a critical assessment. *Spine (Phila Pa 1976)*. 2012 Nov 15;37(24):E1504-10.
17. Skaggs DL, Akbarnia BA, Flynn JM, Myung KS, Sponseller PD, Vitale MG; Chest Wall and Spine Deformity Study Group; Growing Spine Study Group; Pediatric Orthopaedic Society of North America; Scoliosis Research Society Growing Spine Study Committee. *J Pediatr Orthop*. 2014 Apr-May;34(3):260-74.
18. McElroy MJ, Sponseller PD, Fuhrhop SK, Russell CJ, Newton PO, Marks MC, Sanders JO, Yazici M, Pawelek JB, Akbarnia BA; Harms Study Group; Growing Spine Study Group. Clinically significant

- differences exist between curves in operative idiopathic early-onset scoliosis and adolescent idiopathic scoliosis. *Spine (Phila Pa 1976)*. 2013 Jul 15;38(16):1368-74.
19. Flynn JM, Tomlinson LA, Pawelek J, Thompson GH, McCarthy R, Akbarnia BA; Growing Spine Study Group. Growing-rod graduates: lessons learned from ninety-nine patients who completed lengthening. *J Bone Joint Surg Am*. 2013 Oct 2;95(19):1745-50.
 20. Oda JE, Shah SA, Mackenzie WG, Akbarnia BA, Yazici M. Concurrent tethered cord release and growing-rod implantation – is it safe? *Global Spine J*. 2012 Dec;2(4):207-12.
 21. Johnston CE, McClung AM, Thompson GH, Poe-Kochert C, Sanders JO; Growing Spine Study Group. Comparison of Growing Rod Instrumentation Versus Serial Cast Treatment for Early Onset Scoliosis. *Spine Deformity*. 2013 Sep: 1(5): 339-342.
 22. Kabirian N, Akbarnia BA, Pawelek JB, Alam M, Mundis GM Jr, Acacio R, Thompson GH, Marks DS, Gardner A, Sponseller PD, Skaggs DL; the Growing Spine Study Group. Deep Surgical Site Infection Following 2344 Growing-Rod Procedures for Early-Onset Scoliosis: Risk Factors and Clinical Consequences. *J Bone Joint Surg Am*. 2014 Aug 6;96(15):e128.
 23. Myung KS, Skaggs DL, Thompson GH, Emans JB, Akbarnia BA; Growing Spine Study Group. Nutritional improvement following growing rod surgery in children with early onset scoliosis. *J Child Orthop*. 2014 May;8(3):251-6.
 24. Glotzbecker M, Johnston C, Miller P, Smith J, Perez-Grueso FS, Woon R, Flynn J, Gold M, Garg S, Redding G, Cahill P, Emans J. Is there a relationship between thoracic dimensions and pulmonary function in early-onset scoliosis? *Spine (Phila Pa 1976)*. 2014 Sep 1;39(19):1590-5.
 25. Glotzbecker MP, Gold M, Miller P, Akbarnia BA, Johnston CE, Perez Grueso FS, Shah SA, Emans J. Distraction-Based treatment maintains predicted thoracic dimensions in early-onset scoliosis. *Spine Deformity*. 2014 May: 2(3): 203-207.
 26. Skaggs DL, Akbarnia BA, Flynn JM, Myung KS, Sponseller PD, Vitale MG; Chest Wall and Spine Deformity Study Group; Growing Spine Study Group; Pediatric Orthopaedic Society of North America; Scoliosis Research Society Growing Spine Study Committee. A classification of growth friendly spine implants. *J Pediatr Orthop*. 2014 Apr-May;34(3):260-74.
 27. Shah SA, Karatas AF, Dhawale AA, Dede O, Mundis GM Jr, Holmes L Jr, Yorgova P, Neiss G, Johnston CE, Emans JB, Thompson GH, Pawelek JB, Akbarnia BA; Growing Spine Study Group. The effect of serial growing rod lengthening on the sagittal profile and pelvic parameters in early-onset scoliosis. *Spine (Phila Pa 1976)*. 2014 Oct 15;39(22):E1311-7.
 28. Paloski MD, Sponseller PD, Akbarnia BA, Thompson GH, Skaggs DL, Pawelek JB, Nguyen PT, Odum SM, Growing Spine Study Group. Is there an optimal time to distract dual growing rods? *Spine Deformity*. 2014 November: 2(6): 467-470.
 29. Myung KS, Skaggs DL, Johnston CE, Akbarnia BA, Growing Spine Study Group. The use of pedicle screws in children 10 years of age and younger with growing rods. *Spine Deformity*. 2014 November: 2(6): 471-474.
 30. Arandi NR, Pawelek JB, Kabirian N, Thompson GH, Emans JB, Flynn JM, Dormans JP, Akbarnia BA, Growing Spine Study Group. Do thoracolumbar/lumbar curves respond differently to growing rod surgery compared to thoracic curves? *Spine Deformity*. 2014 November: 2(6): 475-480.
 31. Yamaguchi KT, Skaggs DL, Mansour S, Myung KS, Yazici M, Johnston CE, Thompson GH, Sponseller PD, Akbarnia BA, Vitale MG, Growing Spine Study Group. Are rib versus spine anchors protective against breakage of growing rods? *Spine Deformity*. 2014 November: 2(6): 489-492.
 32. Akbarnia BA, Pawelek JB, Cheung KMC, Demirkiran G, Elsebaie H, Emans JB, Johnston CE, Mundis GM, Noordeen H, Skaggs DL, Sponseller PD, Thompson GH, Yaszay B, Yazici M, Growing Spine Study Group. Traditional growing rods versus magnetically controlled growing rods for the surgical treatment of early onset scoliosis: A cased matched two-year study. 2014 November: 2(6): 493-497.
 33. Andras LM, Joiner ER, McCarthy RE, McCullough L, Luhmann SJ, Sponseller PD, Emans JB, Barrett KK, Skaggs DL, Growing Spine Study Group. Growing Rods Versus Shilla Growth Guidance: Better Cobb Angle Correction and T1-S1 Length Increase But More Surgeries. Accepted to *Spine Deformity journal*, January 2015.
 34. Barrett K, Lee C, Myung K, Johnston C, Shah S, Akbarnia B, Skaggs D, Growing Spine Study Group. The Effect of Growing Rod Treatment on Hemoglobin and Hematocrit Levels in Early Onset Scoliosis. Accepted to *Journal of Pediatric Orthopaedics*, February 2015.
 35. Livingston K, Zurakowski D, Snyder B; Growing Spine Study Group; Children's Spine Study Group. Parasol Rib Deformity in Hypotonic Neuromuscular Scoliosis: A New Radiographical Definition and a

- Comparison of Short-term Treatment Outcomes with VEPTR and Growing Rods. *Spine (Phila Pa 1976)*. 2015 Jul 1;40(13):E780-6.
36. Cyr M, Hilaire TS, Pan Z, Thompson GH, Vitale MG, Garg S; Children's Spine Study Group, Growing Spine Study Group. Classification of Early Onset Scoliosis has Excellent Interobserver and Intraobserver Reliability. *J Pediatr Orthop*. 2015 Nov 13.
 37. Pawelek J, Yaszay B, Nguyen S, Newton P, Mundis G, Akbarnia B. Case-Matched Comparison of Spinal Fusion Versus Growing Rods for Progressive Idiopathic Scoliosis in Skeletally Immature Patients. *Spine*, in press as of Feb 2016.
 38. Mundis G, Pawelek J, Nomoto E, Hennessy M, Yaszay B, Akbarnia B. Longitudinal Pilot Analysis of Radiation Exposure During the Course of Growing Rod Treatment for Early-Onset Scoliosis. *2015 Spine Deformity Journal*, 4(1): 55–58.
 39. Jain A, Sponseller PD, Flynn JM, Shah SA, Thompson GH, Emans JB, Pawelek JB, Akbarnia BA, Growing Spine Study Group. Can a "final" surgical fusion be avoided in patients with early-onset scoliosis who reach skeletal maturity after growing-rod treatment? *J Bone Joint Surg Am*. 2016;in press.
 40. Goldstein MJ, Kabirian N, Pawelek JB, Arandi NR, Mundis GM Jr, Yaszay B, Newton PO, Akbarnia BA. Quantifying Anesthesia Exposure in Growing Rod Treatment for Early Onset Scoliosis. *J Pediatr Orthop*. 2016 Feb 15; in press.
 41. Upasani V, Parvaresh K, Pawelek J, Miller P, Thompson G, Skaggs D, Emans J, Glotzbecker M, Growing Spine Study Group. Age at Initiation and Deformity Magnitude Influence Complication Rates of Surgical Treatment with Traditional Growing Rods in Early Onset Scoliosis. *Spine Deformity*; 2016 Apr 3; in press.
 42. Brooks JT, Jain A, Sanchez Perez-Grueso F, Skaggs DL, Thompson GH, Akbarnia BA, Sponseller, PD, Growing Spine Study Group. Outcomes of Pelvic Fixation in Growing Rod Constructs: An Analysis of Patients with a Minimum of Four Years of Postoperative Follow-Up. *Spine Deformity*. 2015;in press.