

Stanford



Theresa Tacy

Professor of Pediatrics (Cardiology) at the Lucile Salter Packard Children's Hospital
Pediatrics - Cardiology

CLINICAL OFFICES

- **Heart Center**

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Bio

CLINICAL FOCUS

- Cardiology (Heart), Pediatric
- Pediatric Cardiology

ACADEMIC APPOINTMENTS

- Professor - Med Center Line, Pediatrics - Cardiology
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Medical Director of Fetal Cardiology, Lucile Packard Children's Hospital Stanford, (2008- present)
- Medical Director of Echocardiography, Lucile Packard Children's Hospital Stanford, (2008-2018)

PROFESSIONAL EDUCATION

- Residency: University of Chicago Medical Center Internal Medicine Residency (1990) IL
- Fellowship: CS Mott Children's Hospital (1993) MI
- Board Certification: Pediatric Cardiology, American Board of Pediatrics (1994)
- Medical Education: University of Texas (1987) TX
- BS, Loyola University of the South , Biology (1983)
- Pediatric Cardiology, University of Michigan , Pediatric Cardiology (1993)
- Pediatrics, University of Chicago Hospitals , Pediatrics (1990)
- MD, UTMB , Medicine (1987)

Publications

PUBLICATIONS

- **Serial assessment of postoperative ventricular mechanics in young children with tetralogy of Fallot: Comparison of transannular patch and valve-sparing repair.** *Congenital heart disease*
Annavajjhala, V., Pun, R., Tacy, T. A., Hanley, F. L., McElhinney, D. B.
2019
- **Death or resolution: the "natural history" of pulmonary hypertension in bronchopulmonary dysplasia.** *Journal of perinatology : official journal of the California Perinatal Association*
Altit, G., Bhombal, S., Hopper, R. K., Tacy, T. A., Feinstein, J.
2019
- **Utility of screening echocardiogram after endomyocardial biopsy for identification of cardiac perforation or tricuspid valve injury.** *Pediatric transplantation*
Peng, D. M., Kipps, A. K., Palmon, M., Tacy, T. A., Peng, L. F., Hollander, S. A., McElhinney, D. B.
2018; 22 (7): e13275
- **Immediate Postnatal Ventricular Performance Is Associated with Mortality in Hypoplastic Left Heart Syndrome.** *Pediatric cardiology*
Altit, G., Bhombal, S., Chock, V. Y., Tacy, T. A.
2018
- **Diminished Cardiac Performance and Left Ventricular Dimensions in Neonates with Congenital Diaphragmatic Hernia** *PEDIATRIC CARDIOLOGY*
Altit, G., Bhombal, S., Van Meurs, K., Tacy, T. A.
2018; 39 (5): 993–1000
- **Impact of Fetal Somatic Growth on Pulmonary Valve Annulus Z-Scores During Gestation and Through Birth in Patients with Tetralogy of Fallot.** *Pediatric cardiology*
Arunamata, A., Balasubramanian, S., Pun, R., Quirin, A., Tacy, T. A.
2018
- **End-Organ Saturation Differences in Early Neonatal Transition for Left-versus Right-Sided Congenital Heart Disease** *NEONATOLOGY*
Altit, G., Bhombal, S., Tacy, T. A., Chock, V. Y.
2018; 114 (1): 53–61
- **The effect of maternal hyperoxygenation on fetal myocardial mechanics and hemodynamics in control fetuses and those with left-heart hypoplasia**
Cox, K., Morris, S. A., Becker, J., Tacy, T., Sakarovitch, C., Maskatia, S. A.
MOSBY-ELSEVIER.2018: S266
- **Ventricular Performance is Associated with Need for Extracorporeal Membrane Oxygenation in Newborns with Congenital Diaphragmatic Hernia.** *The Journal of pediatrics*
Altit, G., Bhombal, S., Van Meurs, K., Tacy, T. A.
2017
- **Echocardiography-Derived Left Ventricular Outflow Tract Gradient and Left Ventricular Posterior Wall Thickening Are Associated with Outcomes for Anatomic Repair in Congenitally Corrected Transposition of the Great Arteries.** *Journal of the American Society of Echocardiography*
Moodley, S., Balasubramanian, S., Tacy, T. A., Chan, F., Hanley, F. L., Pun, R.
2017
- **LVOT-VTI is a Useful Indicator of Low Ventricular Function in Young Patients.** *Pediatric cardiology*
Navaratnam, M., Pun, R., Ramamoorthy, C., Tacy, T. A.
2017
- **Major Aortopulmonary Collateral Arteries With Anatomy Other Than Pulmonary Atresia/Ventricular Septal Defect.** *Annals of thoracic surgery*
Patrick, W. L., Mainwaring, R. D., Reinhartz, O., Pun, R., Tacy, T., Hanley, F. L.
2017
- **Institution of Venous-arterial Extracorporeal Membrane Oxygenation Does Not Lead to Increased Wall Stress in Patients with Impaired Myocardial Function** *PEDIATRIC CARDIOLOGY*

- Koth, A. M., Axelrod, D. M., Reddy, S., Roth, S. J., Tacy, T. A., Punn, R.
2017; 38 (3): 539-546
- **Practices surrounding pulmonary hypertension and bronchopulmonary dysplasia amongst neonatologists caring for premature infants.** *Journal of perinatology : official journal of the California Perinatal Association*
Altit, G., Lee, H. C., Hintz, S., Tacy, T. A., Feinstein, J. A., Bhombal, S.
2017
 - **Institution of Veno-arterial Extracorporeal Membrane Oxygenation Does Not Lead to Increased Wall Stress in Patients with Impaired Myocardial Function.** *Pediatric cardiology*
Koth, A. M., Axelrod, D. M., Reddy, S., Roth, S. J., Tacy, T. A., Punn, R.
2016
 - **Pediatric Echocardiography by Work Relative Value Units: Is Study Complexity Adequately Captured?** *Journal of the American Society of Echocardiography*
Balasubramanian, S., Kipps, A. K., Smith, S. N., Tacy, T. A., Selamet Tierney, E. S.
2016; 29 (11): 1084-1091
 - **Pulmonary Valve Repair for Patients With Acquired Pulmonary Valve Insufficiency** *ANNALS OF THORACIC SURGERY*
Said, S. M., Mainwaring, R. D., Ma, M., Tacy, T. A., Hanley, F. L.
2016; 101 (6): 2294-2301
 - **Assessment of Speckle-Tracking Echocardiography-Derived Global Deformation Parameters During Supine Exercise in Children.** *Pediatric cardiology*
Liu, M. Y., Tacy, T., Chin, C., Obayashi, D. Y., Punn, R.
2016; 37 (3): 519-527
 - **Assessment of Speckle-Tracking Echocardiography-Derived Global Deformation Parameters During Supine Exercise in Children** *PEDIATRIC CARDIOLOGY*
Liu, M. Y., Tacy, T., Chin, C., Obayashi, D. Y., Punn, R.
2016; 37 (3): 519-527
 - **Cardioplegia Dose Effect on Immediate Postoperative Alterations in Coronary Artery Flow Velocities After Congenital Cardiac Surgery.** *Pediatric cardiology*
Davidson, H., Punn, R., Tacy, T. A.
2016; 37 (2): 364-371
 - **Mitral Stenosis and Aortic Atresia-A Risk Factor for Mortality After the Modified Norwood Operation in Hypoplastic Left Heart Syndrome** *ANNALS OF THORACIC SURGERY*
Siehr, S. L., Maeda, K., Connolly, A. A., Tacy, T. A., Reddy, V. M., Hanley, F. L., Perry, S. B., Wright, G. E.
2016; 101 (1): 162-168
 - **Mitral Stenosis and Aortic Atresia-A Risk Factor for Mortality After the Modified Norwood Operation in Hypoplastic Left Heart Syndrome.** *Annals of thoracic surgery*
Siehr, S. L., Maeda, K., Connolly, A. A., Tacy, T. A., Reddy, V. M., Hanley, F. L., Perry, S. B., Wright, G. E.
2016; 101 (1): 162-167
 - **Echocardiographic measures associated with early postsurgical myocardial dysfunction in pediatric patients with mitral valve regurgitation.** *Journal of the American Society of Echocardiography*
Arunamata, A., Selamet Tierney, E. S., Tacy, T. A., Punn, R.
2015; 28 (3): 284-293
 - **Echocardiographic Measures Associated With Early Postsurgical Myocardial Dysfunction in Pediatric Patients With Mitral Valve Regurgitation** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Arunamata, A., Tierney, E. S., Tacy, T. A., Punn, R.
2015; 28 (3): 284-293
 - **A novel approach to the management of critically ill neonatal Ebstein's anomaly: Venovenous extracorporeal membrane oxygenation to promote right ventricular recovery.** *Annals of pediatric cardiology*
Bauser-Heaton, H., Nguyen, C., Tacy, T., Axelrod, D.
2015; 8 (1): 67-70

- **Predictors of Mortality in Pediatric Patients on Venarterial Extracorporeal Membrane Oxygenation** *PEDIATRIC CRITICAL CARE MEDICINE*
Punn, R., Axelrod, D. M., Sherman-Levine, S., Roth, S. J., Tacy, T. A.
2014; 15 (9): 870-877
- **Fetal MRI correlates with postnatal CT angiogram assessment of pulmonary anatomy in tetralogy of Fallot with absent pulmonary valve.** *Congenital heart disease*
Sun, H. Y., Boe, J., Rubesova, E., Barth, R. A., Tacy, T. A.
2014; 9 (4): E105-9
- **Fetal MRI Correlates with Postnatal CT Angiogram Assessment of Pulmonary Anatomy in Tetralogy of Fallot with Absent Pulmonary Valve.** *Congenital heart disease*
Sun, H. Y., Boe, J., Rubesova, E., Barth, R. A., Tacy, T. A.
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- **PEDIATRIC ECHOCARDIOGRAPHY BY WORK RELATIVE VALUE UNITS: IS STUDY COMPLEXITY ADEQUATELY CAPTURED?**
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- **Functional Imaging in Fetal Echocardiography: A Review of Conventional and Novel Approaches.** *Cardiovascular engineering and technology*
Balasubramanian, S., Tacy, T. A.
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- **Echocardiographic Predictors of Early Postsurgical Myocardial Dysfunction in Pediatric Patients With Aortic Valve Insufficiency** *PEDIATRIC CARDIOLOGY*
Lowenthal, A., Tacy, T. A., Behzadian, F., Punn, R.
2013; 34 (6): 1335-1343
- **Tricuspid Atresia With Progressive Ductal Restriction in a Fetus** *PEDIATRIC CARDIOLOGY*
Lowenthal, A., Lal, A., Tierney, E. S., Tacy, T. A.
2013; 34 (6): 1499-1501
- **Tricuspid atresia with progressive ductal restriction in a fetus.** *Pediatric cardiology*
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- **Expanding the Phenotype of Cardiovascular Malformations in Adams-Oliver Syndrome** *AMERICAN JOURNAL OF MEDICAL GENETICS PART A*
Algaze, C., Esplin, E. D., Lowenthal, A., Hudgins, L., Tacy, T. A., Tierney, E. S.
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- **Congenital heart defects in a large, unselected cohort of monozygotic twins** *JOURNAL OF PERINATOLOGY*
Pettit, K. E., Merchant, M., Machin, G. A., Tacy, T. A., Norton, M. E.
2013; 33 (6): 457-461
- **Myocardial Deformation in the Fetal Single Ventricle** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Truong, U. T., Sun, H. Y., Tacy, T. A.
2013; 26 (1): 57-63
- **Diagnosis of Tetralogy of Fallot and Its Variants in the Late First and Early Second Trimester: Details of Initial Assessment and Comparison with Later Fetal Diagnosis** *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*
Bhat, A. H., Kehl, D. W., Tacy, T. A., Moon-Grady, A. J., Hornberger, L. K.
2013; 30 (1): 81-87
- **Tissue Doppler-Derived Measurement of Isovolumic Myocardial Contraction in the Pediatric Population** *PEDIATRIC CARDIOLOGY*
Punn, R., Behzadian, F., Tacy, T. A.
2012; 33 (5): 720-727

- **Surgical Results in Patients With Pulmonary Atresia-Major Aortopulmonary Collaterals in Association With Total Anomalous Pulmonary Venous Connection** *ANNALS OF THORACIC SURGERY*
Mainwaring, R. D., Reddy, M., Reinhartz, O., Punn, R., Tacy, T., Hanley, F. L.
2011; 92 (5): 1756-1760
- **Annular Tilt as a Screening Test for Right Ventricular Enlargement in Patients with Tetralogy of Fallot** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Punn, R., Behzadian, F., Tacy, T. A.
2010; 23 (12): 1297-1302
- **Newborn with Persistent Truncus Arteriosus and Interrupted Aortic Arch Demonstrating Reverse Left Subclavian Artery Flow** *PEDIATRIC CARDIOLOGY*
Chan, E. L., Tacy, T. A., Punn, R.
2010; 31 (8): 1254-1256
- **Peripheral Arterial Function in Infants and Young Children With One-Ventricle Physiology and Hypoxemia** *AMERICAN JOURNAL OF CARDIOLOGY*
Natarajan, S., Heiss, C., Yeghiazarians, Y., Fineman, J. R., Teitel, D. F., Tacy, T. A.
2009; 103 (6): 862-866
- **Non-invasive estimation of pressure gradients in regurgitant jets: an overdue consideration** *EUROPEAN JOURNAL OF ECHOCARDIOGRAPHY*
Giardini, A., Tacy, T. A.
2008; 9 (5): 578-584
- **Color M-mode propagation velocity, but not its ratio to early diastolic inflow velocity, changes throughout gestation in normal human fetuses** *ULTRASOUND IN OBSTETRICS & GYNECOLOGY*
Moon-Grady, A. J., Taylor, D., Bennett, S. H., Hornberger, L. K., Tacy, T. A.
2008; 31 (5): 535-541
- **Highlights of the 18th annual scientific sessions of the American Society of Echocardiography Seattle, Washington, June 16-20, 2007.** *Journal of the American College of Cardiology*
Lang, R. M., Coon, P. D., Gardin, J. M., Spencer, K. T., Tacy, T. A., Vannan, M. A., Weissman, N. J., Zoghbi, W. A., Picard, M. H.
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- **Usefulness of cardiopulmonary exercise to predict long-term prognosis in adults with repaired tetralogy of Fallot** *AMERICAN JOURNAL OF CARDIOLOGY*
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- **Reliability of two-dimensional echocardiography in the assessment of clinically significant abnormal hemidiaphragm motion in pediatric cardiothoracic patients: Comparison with fluoroscopy** *PEDIATRIC CRITICAL CARE MEDICINE*
Miller, S. G., Brook, M. M., Tacy, T. A.
2006; 7 (5): 441-444
- **Combined treatment with a nonselective nitric oxide synthase inhibitor (L-NMMA) and indomethacin increases ductus constriction in extremely premature newborns** *PEDIATRIC RESEARCH*
Keller, R. L., Tacy, T. A., Fields, S., Ofenstein, J. P., Aranda, J. V., Clyman, R. I.
2005; 58 (6): 1216-1221
- **Effect of chamber capacitance on Doppler flow pattern across restrictive defects in obligatory atrial-level shunts** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Giardini, A., Schmitt, B., Azakie, A., Tacy, T. A.
2004; 17 (12): 1286-1291
- **Gender differences in pediatric cardiac surgery: The cardiologist's perspective** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Miller-Hance, W. C., Tacy, T. A.
2004; 128 (1): 7-10
- **Accuracy of coronary artery anatomy using two-dimensional echocardiography in d-transposition of great arteries using a two-reviewer method** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Gremmels, D. B., Tacy, T. A., Brook, M. M., Silverman, N. H.
2004; 17 (5): 454-460

- **Value of clinical and echocardiographic features in predicting outcome in the fetus, infant, and child with tetralogy of Fallot with absent pulmonary valve complex** *AMERICAN JOURNAL OF CARDIOLOGY*
Moon-Grady, A. J., Tacy, T. A., Brook, M. M., Hanley, F. L., Silverman, N. H.
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- **Systemic venous abnormalities: Embryologic and echocardiographic considerations** *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*
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- **Late thrombosis of the native aortic root after Norwood reconstruction for hypoplastic left heart syndrome** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Brennan, T. V., Rodefeld, M. D., Tacy, T. A., Reddy, V. M., Hanley, F. L.
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Paek, B. W., Jennings, R. W., Harrison, M. R., Filly, R. A., Tacy, T. A., Farmer, D. L., Albanese, C. T.
2001; 184 (3): 503-507
- **Rapid enlargement of neo-aortic root after the Ross procedure in children** *AMERICAN JOURNAL OF CARDIOLOGY*
PUNTEL, R. A., Webber, S. A., Ettedgui, J. A., Tacy, T. A.
1999; 84 (6): 747-?
- **Effect of aortic compliance on Doppler diastolic flow pattern in coarctation of the aorta** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Tacy, T. A., Baba, K., Cape, E. G.
1999; 12 (8): 636-642
- **In vitro Doppler assessment of pressure gradients across modified Blalock-Taussig shunts** *AMERICAN JOURNAL OF CARDIOLOGY*
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1998; 81 (10): 1219-?
- **In vitro analysis of regurgitant fraction using Doppler power-weighted sum of velocities** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
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- **USE OF BACKSCATTERED DOPPLER SIGNAL INTENSITY IN ESTIMATION OF VOLUME FLOW RATIOS** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Tacy, T. A., Cape, E. G.
1995; 25 (6): 1474-1475
- **RANGE OF NORMAL VALVE ANNULUS SIZE IN NEONATES** *AMERICAN JOURNAL OF CARDIOLOGY*
Tacy, T. A., Vermilion, R. P., Ludomirsky, A.
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- **PALLIATIVE ARTERIAL REPAIR FOR TRANSPOSITION, VENTRICULAR SEPTAL-DEFECT, AND PULMONARY VASCULAR-DISEASE** *ANNALS OF THORACIC SURGERY*
PRIDJIAN, A. K., Tacy, T. A., Teske, D., Bove, E. L.
1992; 54 (2): 355-356