Stanford



Tandy Aye

Stanford Pediatric Endocrinology Endowed Professor and Professor, by courtesy, of Psychiatry and Behavioral Sciences

Pediatrics - Endocrinology

CLINICAL OFFICE (PRIMARY)

- **Stanford Children's Health Specialty Services Sunnyvale**

  1195 W Fremont Ave

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Bio

CLINICAL FOCUS

- Endocrinology/Diabetes, Pediatric
- Pediatric Endocrinology
- Healthcare of Gender Nonconforming Youth
- Type 1 Diabetes

ACADEMIC APPOINTMENTS

- Professor-Univ Med Line, Pediatrics - Endocrinology
- Professor-Univ Med Line (By courtesy), Psychiatry and Behavioral Sciences - Interdisciplinary Brain Sciences
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Medicine Children’s Health Center for IBD and Celiac Disease

ADMINISTRATIVE APPOINTMENTS

- Medical Director, Stanford Pediatric and Adolescent Gender Clinic, (2019- present)
- Fellowship Program Director, Pediatric Endocrinology and Diabetes, (2011- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board of Directors, Pediatric Endocrine Society (2021 - present)
- Member, Pediatric Endocrine Society Workforce Action Team (2019 - present)
- Committee Chair, Pediatric Endocrine Society Training Council (2017 - 2020)
- Secretary/Treasurer, Council of Pediatric Subspecialties (2017 - 2020)
- Member, World Professional Association for Transgender Health (2016 - present)
- Member, Council of Pediatric Subspecialties (2014 - present)
- Member, Pediatric Endocrine Society Training Committee (2013 - present)

- Member, Association of Pediatric Program Directors (2011 - present)
- Member, American Diabetes Association (2005 - present)
- Member, Pediatric Endocrine Society (2002 - present)

PROFESSIONAL EDUCATION

- Residency: Children's Hospital of Philadelphia Dept of Pediatrics (2002) PA
- Internship: Children's Hospital of Philadelphia Dept of Pediatrics (2000) PA
- Medical Education: Sidney Kimmel Medical College Thomas Jefferson University (1999) PA
- Research Fellow, Joslin Diabetes Center , Beta Cell (2005)
- Fellowship: Massachusetts General Hospital (2005) MA
- Board Certification: Pediatric Endocrinology, American Board of Pediatrics (2007)

Research & Scholarship

CLINICAL TRIALS

- Evaluation of a Non-invasive Brain Compliance Measurement Device, Not Recruiting
- Neuropsychological and Neuroanatomical Studies of Young Children With and Without Type 1 Diabetes Mellitus, Not Recruiting
- Salivary Cortisol Measurements by Mass Spectrometry, Not Recruiting

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Pediatric Endocrinology (Fellowship Program)

Publications

PUBLICATIONS

- **Implementing Entrustable Professional Activities in Pediatric Fellowships: Facilitating the Process.** *Pediatrics*
  Langhan, M. L., Boyer, D. L., Hsu, D., Moffatt, M. E., Pitts, S. A., Atlas, M. P., Aye, T., Chess, P., Curran, M. L., Czaja, A. S., Dammann, C. E., Fussell, J., George, et al
  2024

- **Child Health Needs and the Pediatric Endocrinology Workforce: 2020-2040.** *Pediatrics*
  Aye, T., Boney, C. M., Orr, C. J., Leonard, M. B., Leslie, L. K., Allen, D. B.
  2024; 153 (Suppl 2)

- **Mental Health of Youth With Autism Spectrum Disorder and Gender Dysphoria.** *Pediatrics*
  Kahn, N. F., Sequeira, G. M., Reyes, V., Garrison, M. M., Orlich, F., Christakis, D. A., Aye, T., Conard, L. A., Dowshen, N., Kazak, A. E., Nahata, L., Nokoff, N. J., Voss, et al
  2023

- **Relationship between epa level of supervision with their associated subcompetency milestone levels in pediatric fellow assessment.** *BMC medical education*
  Mink, R. B., Carraccio, C. L., Herman, B. E., Weiss, P., Turner, D. A., Stafford, D. E., McGann, K. A., Kesselheim, J., Hsu, D. C., High, P. C., Fussell, J. J., Curran, M. L., Chess, et al
  2023; 23 (1): 720

- **Executive dysfunction in Klinefelter syndrome: associations with brain activation and testicular failure.** *The Journal of clinical endocrinology and metabolism*
  Foland-Ross, L. C., Ghasemi, E., Wun, V. L., Aye, T., Kowal, K., Ross, J., Reiss, A. L.
  2023

- **Comparisons of body composition and muscle strength between transgender adolescents and cisgender controls**
  Misakian, A., Long, J., Kent, K., Leonard, M. B., Aye, T.
  KARGER.2023: 378-381

- **Co-occurring Autism Spectrum Disorder and Gender Dysphoria in Adolescents.** *Pediatrics*
  Kahn, N. F., Sequeira, G. M., Garrison, M. M., Orlich, F., Christakis, D. A., Aye, T., Conard, L. A., Dowshen, N., Kazak, A. E., Nahata, L., Nokoff, N. J., Voss, R. V., Richardson, et al
  2023

- **A self-guided curriculum on endocrinology standard of care for gender diverse youth, including ethical considerations.** *Endocrine and metabolic science*
  Sandberg, E. S., Baines, H. K., Aye, T., Harris, R. M., Hart-Unger, S., Lopez, X., Nikita, M. E., Nokoff, N. J., Persky, R., Roberts, S. A.
  2023; 11

- **Review of implant gonadotrophin-releasing hormone agonist use: experience in a single academic center** *HORMONE RESEARCH IN PAEDIATRICS*
  Ni, J., Chi, C., Aye, T.
  2023

- **Contribution of local density variation to micro-finite element analysis in pediatric HR-pQCT**
  Burghardt, A., Long, J., Aye, T., Kent, K., Strickland, A., Leonard, M.
  WILEY.2023: 193-194

- **Transgender Females on Gonadotropin Agonist Have Lower BMD Scores But Muscle Strength Remained Similar to Controls**
  Aye, T., Long, J., Kent, K., Burghardt, A., Leonard, M.
  WILEY.2023: 230-231

- **A Pilot randomized trial to examine effects of a hybrid closed-loop insulin delivery system on neurodevelopmental and cognitive outcomes in adolescents with type 1 diabetes.** *Nature communications*
  Reiss, A. L., Jo, B., Arbelaez, A. M., Tsalikian, E., Buckingham, B., Weinzimer, S. A., Fox, L. A., Cato, A., White, N. H., Tansey, M., Aye, T., Tamborlane, W., Englert, et al
  2022; 13 (1): 4940

- **Fertility preservation in transgender and non-binary adolescents and young adults.** *PloS one*
  Cooper, H. C., Long, J., Aye, T.
  2022; 17 (3): e0265043

- **Fellow Entrustment for the Common Pediatric Subspecialty Entrustable Professional Activities Across Subspecialties.** *Academic pediatrics*
  Pitts, S., Schwartz, A., Carraccio, C. L., Herman, B. E., Mahan, J. D., Sauer, C. G., Dammann, C. E., Aye, T., Myers, A. L., Weiss, P. G., Turner, D. A., Hsu, D. C., Stafford, et al
  1800

- **Achieving Entrustable Professional Activities During Fellowship** *PEDIATRICS*
  Weiss, P. G., Schwartz, A., Carraccio, C. L., Herman, B. E., Turner, D. A., Aye, T., Fussell, J. J., Kesselheim, J., Mahan, J. D., McGann, K. A., Myers, A., Stafford, D. E. J., Chess, et al
  2021; 148 (5)

- **Achieving Entrustable Professional Activities During Fellowship.** *Pediatrics*
  Weiss, P. G., Schwartz, A., Carraccio, C. L., Herman, B. E., Turner, D. A., Aye, T., Fussell, J. J., Kesselheim, J., Mahan, J. D., McGann, K. A., Myers, A., Stafford, D. E., Chess, et al
  2021

- **Review of Implant Gonadotropin-Releasing Hormone Agonist Use: Experience in a Single Academic Center**
  Ni, J., Kelsey, S., St. Martin, M., Clash, K., Aye, T.
  KARGER.2021: 102

- **National Assessment for the Need of a Comprehensive Pediatric Gender Affirming Care Curriculum**
  Sandberg, E., Baines, H., Aye, T., Hart-Unger, S., Lopez, X., Nikita, M., Nokoff, N. J., Persky, R., Shumer, D., Harris, R. M., Roberts, S. A.
  KARGER.2021: 130

- **Continued Supervision for the Common Pediatric Subspecialty Entrustable Professional Activities May Be Needed Following Fellowship Graduation.** *Academic medicine : journal of the Association of American Medical Colleges*
  Turner, D. A., Schwartz, A., Carraccio, C., Herman, B., Weiss, P., Baffa, J. M., Chess, P., Curran, M., Dammann, C., High, P., Hsu, D., Pitts, S., Sauer, et al
  2021; 96 (7S): S22-S28

- **Perceptions of Support Among Transgender and Gender-Expansive Adolescents and Their Parents.** *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*
  Hale, A. E., Chertow, S. Y., Weng, Y., Tabuenca, A., Aye, T.
  2021

- **Impact of Type 1 Diabetes in the Developing Brain in Children: A Longitudinal Study.** *Diabetes care*
  Mauras, N., Buckingham, B., White, N. H., Tsalikian, E., Weinzimer, S. A., Jo, B., Cato, A., Fox, L. A., Aye, T., Arbelaez, A. M., Hershey, T., Tansey, M., Tamborlane, et al
  2021

- **Pediatric Endocrinology: Perspectives of Pediatric Endocrinologists Regarding Career Choice and Recruitment of Trainees.** *Endocrine practice : official journal of the American College of Endocrinology and the American Association of Clinical Endocrinologists*
  Kumar, S., Ashraf, A. P., Lteif, A., Lynch, J., Aye, T.
  2020

- **Type 1 Diabetes is Associated with Bone and Muscle Deficiencies in Children and Adolescents**
  Long, J., Seeley, H., Whalen, J., Strickland, A., Kent, K., Aye, T., Bachrach, L., Leonard, M.
  WILEY.2020: 76

- **Associations of Sex, Sexual maturation, IGF1 and Muscle Mass with Bone Failure Load in the Tibia and Radius Metaphysis and Diaphysis dining Development**
  Aye, T., Long, J., Kent, K., Whalen, J., Strickland, A., Burghardt, A., Leonard, M.
  WILEY.2020: 76

- **Sustaining the Pediatric Endocrinology Workforce: Recommendations from the Pediatric Endocrine Society Workforce Task Force.** *The Journal of pediatrics*
  Allen, D. B., Aye, T., Boney, C. M., Eugster, E. A., Misra, M., Singer, K., Stafford, D., Witchel, S. F., Zeitler, P.
  2020

- **Perspectives of Pediatric Endocrinologists on Career Choice and Strategies to Stimulate Interest in Pediatric Endocrinology Subspecialty Training**
  Kumar, S., Lteif, A., Lynch, J., Aye, T., Ashraf, A.
  KARGER.2020: 141–42

- **Brain Function Differences in Children With Type 1 Diabetes: An fMRI Study of Working Memory.** *Diabetes*
  Foland-Ross, L. C., Tong, G. n., Mauras, N. n., Cato, A. n., Aye, T. n., Tansey, M. n., White, N. H., Weinzimer, S. A., Englert, K. n., Shen, H. n., Mazaika, P. K., Reiss, A. L.
  2020

- **Agreement of Program Directors With Clinical Competency Committees for Fellow Entrustment.** *Journal of medical education and curricular development*
  Mink, R., Herman, B. E., Carraccio, C., Aye, T., Baffa, J. M., Chess, P. R., Fussell, J. J., Sauer, C. G., Stafford, D. E., Weiss, P., Curran, M. L., Dammann, C. E., High, et al
  2020; 7: 2382120520936613

- **THE GUIDED TRANSFER OF CARE IMPROVES ADULT CLINIC SHOW RATE.** *Endocrine practice : official journal of the American College of Endocrinology and the American Association of Clinical Endocrinologists*
  Lal, R. A., Maahs, D. M., Dosiou, C. n., Aye, T. n., Basina, M. n.
  2020

- **Functional Near-Infrared Spectroscopy (fNIRS) detects increased activation of the brain frontal-parietal network in youth with type 1 diabetes.** *Pediatric diabetes*
  Mazaika, P. K., Marzelli, M. n., Tong, G. n., Foland-Ross, L. C., Buckingham, B. A., Aye, T. n., Reiss, A. L.
  2020

- **Executive task-based brain function in children with type 1 diabetes: An observational study.** *PLoS medicine*
  Foland-Ross, L. C., Buckingam, B., Mauras, N., Arbelaez, A. M., Tamborlane, W. V., Tsalikian, E., Cato, A., Tong, G., Englert, K., Mazaika, P. K., Reiss, A. L., Diabetes Research in Children Network (DirecNet)
  2019; 16 (12): e1002979

- **The risk of progression to type 1 diabetes is highly variable in individuals with multiple autoantibodies following screening.** *Diabetologia*
  Jacobsen, L. M., Bocchino, L., Evans-Molina, C., DiMeglio, L., Goland, R., Wilson, D. M., Atkinson, M. A., Aye, T., Russell, W. E., Wentworth, J. M., Boulware, D., Geyer, S., Sosenko, et al
  2019

- **Eating Disorder Screening in Transgender Youth.** *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*
  Avila, J. T., Golden, N. H., Aye, T.
  2019

- **The Guided Transition of Care**
  Lal, R., Maahs, D. M., Dosiou, C., Aye, T., Basina, M.
  AMER DIABETES ASSOC.2019

- **Creating the Subspecialty Pediatrics Investigator Network (vol 192, pg 3, 2018)** *JOURNAL OF PEDIATRICS*
  Mink, R., Schwartz, A., Carraccio, C., High, P., Dammann, C., McGann, K. A., Kesselheim, J., Aye, T., Baffa, J., Chess, P., Curran, M., Fussell, J., Hsu, et al
  2019; 207: 269

- **EATING DISORDER SCREENING IN GENDER MINORITY ADOLESCENTS AND YOUNG ADULTS**
  Avila, J., Golden, N., Aye, T.
  ELSEVIER SCIENCE INC.2019: S102–S103

- **Challenges with Patient Adoption of Automated Integration of Blood Glucose Meter Data in the Electronic Health Record.** *Diabetes technology & therapeutics*
  Weatherly, J. n., Kishnani, S. n., Aye, T. n.
  2019

- **Salivary cortisol levels by tandem mass spectrometry during high dose ACTH stimulation test for adrenal insufficiency in children.** *Endocrine*
  Chao, C. S., Shi, R. Z., Kumar, R. B., Aye, T. n.
  2019

- **Challenges of Funding Pediatric Fellowship Programs-Invited Commentary from the Council of Pediatric Subspecialties.** *The Journal of pediatrics*
  Heyman, M. B., Weiss, P., Boyer, D., Fussell, J., Imundo, L., Aye, T., Jarjour, I. T., Spicer, R., Bale, J.
  2019; 204: 4

- **Impact of Sex and Maturation on Trabecular and Cortical Microarchitecture in Children and Young Adults**
  Aye, T., Kent, K., Long, J., Whalen, J., Strickland, A., Burghardt, A., Leonard, M. B.
  WILEY.2018: 209–10

- **Care of the Transgender Adolescent with Type 1 Diabetes**
  Avila, J., Aye, T.
  AMER DIABETES ASSOC.2018

- **Longitudinal assessment of hippocampus structure in children with type 1 diabetes.** *Pediatric diabetes*
  Foland-Ross, L. C., Reiss, A. L., Mazaika, P. K., Mauras, N., Weinzimer, S. A., Aye, T., Tansey, M. J., White, N. H., Diabetes Research in Children Network (DirecNet)
  2018

- **Large Changes in Brain Volume Observed in an Asymptomatic Young Child With Type 1 Diabetes.** *Diabetes care*
  Mazaika, P. K., Aye, T., Reiss, A. L., Buckingham, B. A.
  2018; 41 (7): 1535–37

- **Impact of Early Diabetic Ketoacidosis on the Developing Brain.** *Diabetes care*

Aye, T. n., Mazaika, P. K., Mauras, N. n., Marzelli, M. J., Shen, H. n., Hershey, T. n., Cato, A. n., Weinzimer, S. A., White, N. H., Tsalikian, E. n., Jo, B. n., Reiss, A. L.

2018

- **Efficacy of an Overnight Predictive Low-Glucose Suspend System in Relation to Hypoglycemia Risk Factors in Youth and Adults With Type 1 Diabetes.** *Journal of diabetes science and technology*

  Calhoun, P. M., Buckingham, B. A., Maahs, D. M., Hramiak, I., Wilson, D. M., Aye, T., Clinton, P., Chase, P., Messer, L., Kollman, C., Beck, R. W., Lum, J.

  2016; 10 (6): 1216-1221

- **Ketone production in children with type 1 diabetes, ages 4-14 years, with and without nocturnal insulin pump suspension.** *Pediatric diabetes*

  Wadwa, R. P., Chase, H. P., Raghinaru, D., Buckingham, B. A., Hramiak, I., Maahs, D. M., Messer, L., Ly, T., Aye, T., Clinton, P., Kollman, C., Beck, R. W., Lum, et al

  2016

- **Changes in beta cell function during the proximate post-diagnosis period in persons with type 1 diabetes** *PEDIATRIC DIABETES*

  Dimeglio, L. A., Cheng, P., Beck, R. W., Kollman, C., Ruedy, K. J., Slover, R., Aye, T., Weinzimer, S. A., Bremer, A. A., Buckingham, B.

  2016; 17 (4): 237-243

- **Longitudinal Evaluation of Cognitive Functioning in Young Children with Type 1 Diabetes over 18 Months.** *Journal of the International Neuropsychological Society*

  Cato, M. A., Mauras, N., Mazaika, P., Kollman, C., Cheng, P., Aye, T., Ambrosino, J., Beck, R. W., Ruedy, K. J., Reiss, A. L., Tansey, M., White, N. H., Hershey, et al

  2016; 22 (3): 293-302

- **Variations in Brain Volume and Growth in Young Children With Type 1 Diabetes.** *Diabetes*

  Mazaika, P. K., Weinzimer, S. A., Mauras, N., Buckingham, B., White, N. H., Tsalikian, E., Hershey, T., Cato, A., Aye, T., Fox, L., Wilson, D. M., Tansey, M. J., Tamborlane, et al

  2016; 65 (2): 476-485

- **Predictive Low-Glucose Insulin Suspension Reduces Duration of Nocturnal Hypoglycemia in Children Without Increasing Ketosis** *DIABETES CARE*

  Buckingham, B. A., Raghinaru, D., Cameron, F., Bequette, B. W., Chase, H. P., Maahs, D. M., Slover, R., Wadwa, R. P., Wilson, D. M., Ly, T., Aye, T., Hramiak, I., Clarson, et al

  2015; 38 (7): 1197-1204

- **Factors Associated with Nocturnal Hypoglycemia in At-Risk Adolescents and Young Adults with Type 1 Diabetes** *DIABETES TECHNOLOGY & THERAPEUTICS*

  Wilson, D. M., Calhoun, P. M., Maahs, D. M., Chase, H. P., Messer, L., Buckingham, B. A., Aye, T., Clinton, P. K., Hramiak, I., Kollman, C., Beck, R. W.

  2015; 17 (6): 385-391

- **Longitudinal Assessment of Neuroanatomical and Cognitive Differences in Young Children With Type 1 Diabetes: Association With Hyperglycemia** *DIABETES*

  Mauras, N., Mazaika, P., Buckingham, B., Weinzimer, S., White, N. H., Tsalikian, E., Hershey, T., Cato, A., Cheng, P., Kollman, C., Beck, R. W., Ruedy, K., Aye, et al

  2015; 64 (5): 1770-1779

- **A Randomized Trial of a Home System to Reduce Nocturnal Hypoglycemia in Type 1 Diabetes** *DIABETES CARE*

  Maahs, D. M., Calhoun, P., Buckingham, B. A., Chase, H. P., Hramiak, I., Lum, J., Cameron, F., Bequette, B. W., Aye, T., Paul, T., Slover, R., Wadwa, R. P., Wilson, et al

  2014; 37 (7): 1885-1891

- **A randomized trial of a home system to reduce nocturnal hypoglycemia in type 1 diabetes.** *Diabetes care*

  Maahs, D. M., Calhoun, P., Buckingham, B. A., Chase, H. P., Hramiak, I., Lum, J., Cameron, F., Bequette, B. W., Aye, T., Paul, T., Slover, R., Wadwa, R. P., Wilson, et al

  2014; 37 (7): 1885-1891

- **Cognitive functioning in young children with type 1 diabetes.** *Journal of the International Neuropsychological Society*

  Cato, M. A., Mauras, N., Ambrosino, J., Bondurant, A., Conrad, A. L., Kollman, C., Cheng, P., Beck, R. W., Ruedy, K. J., Aye, T., Reiss, A. L., White, N. H., Hershey, et al

2014; 20 (2): 238-247

- **Alterations in white matter structure in young children with type 1 diabetes.** *Diabetes care*
  Barnea-Goraly, N., Raman, M., Mazaika, P., Marzelli, M., Hershey, T., Weinzimer, S. A., Aye, T., Buckingham, B., Mauras, N., White, N. H., Fox, L. A., Tansey, M., Beck, et al
  2014; 37 (2): 332-340

- **High success rates of sedation-free brain MRI scanning in young children using simple subject preparation protocols with and without a commercial mock scanner-the Diabetes Research in Children Network (DirecNet) experience.** *Pediatric radiology*
  Barnea-Goraly, N., Weinzimer, S. A., Ruedy, K. J., Mauras, N., Beck, R. W., Marzelli, M. J., Mazaika, P. K., Aye, T., White, N. H., Tsalikian, E., Fox, L., Kollman, C., Cheng, et al
  2014; 44 (2): 181-186

- **Alterations in white matter structure in young children with type 1 diabetes mellitus** *DIABETES CARE*
  Barnea-Goraly, N., Raman, M., Mazaika, P., Marzelli, M., et al
  2014: 332–40

- **Real-time continuous glucose monitoring systems in the classroom/school environment.** *Diabetes technology & therapeutics*
  Benassi, K., Drobny, J., Aye, T.
  2013; 15 (5): 409-412

- **White Matter Structural Differences in Young Children With Type 1 Diabetes: A Diffusion Tensor Imaging Study** *DIABETES CARE*
  Aye, T., Barnea-Goraly, N., Ambler, C., Hoang, S., Schleifer, K., Park, Y., Drobny, J., Wilson, D. M., Reiss, A. L., Buckingham, B. A.
  2012; 35 (11): 2167-2173

- **Analysis of the NovoTwist pen needle in comparison with conventional screw-thread needles.** *Journal of diabetes science and technology*
  Aye, T.
  2011; 5 (6): 1488-1489

- **The Feasibility of Detecting Neuropsychologic and Neuroanatomic Effects of Type 1 Diabetes in Young Children** *DIABETES CARE*
  Aye, T., Reiss, A. L., Kesler, S., Hoang, S., Drobny, J., Park, Y., Schleifer, K., Baumgartner, H., Wilson, D. M., Buckingham, B. A.
  2011; 34 (7): 1458-1462

- **Toward Closing the Loop: An Update on Insulin Pumps and Continuous Glucose Monitoring Systems** *ENDOCRINOLOGY AND METABOLISM CLINICS OF NORTH AMERICA*
  Aye, T., Block, J., Buckingham, B.
  2010; 39 (3): 609-?

- **Metformin Extended Release Treatment of Adolescent Obesity A 48-Week Randomized, Double-Blind, Placebo-Controlled Trial With 48-Week Follow-up** *ARCHIVES OF PEDIATRICS & ADOLESCENT MEDICINE*
  Wilson, D. M., Abrams, S. H., Aye, T., Lee, P. D., Lenders, C., Lustig, R. H., Osganian, S. V., Feldman, H. A.
  2010; 164 (2): 116-123