



I'm not robot



Continue

Pediatric hypertension guidelines 2016

Substantial body of clinical data on increased blood pressure (BP) in children and adolescents has been published over the past decade. In response to the need to update management guidelines on childhood hypertension, the American Academy of Pediatrics (AAP) supports the development and publication of new clinical practice guidelines on high BP in childhood. Before 1977, there was no consistent definition of hypertension in childhood, and BP was not commonly measured in asymptomatic children or adolescents. As a result, childhood hypertension has been considered rare and, if detected, the assumption is that it will become secondary to the underlying disorder. In the mid-1970s, the National High Blood Pressure Education (NHBPEP) National Heart Lung and Blood Institute (NHLBI) convened a task force to examine BP data available in healthy children to determine normal BP distribution in children and determine bp's upper limit according to age. Although bp data available at the time was limited by current standards, it is clear that BP levels in children are age-related, with progressive increases from early childhood to adolescence. In the absence of long-term outcome data, it is impossible to link childhood BP levels with the risk of cardiovascular events in later life. Therefore, the task force defines hypertension as a BP level that exceeds the 95th percentile on bp's age-related distribution curve. The recommendations of the task force on the detection, evaluation, and management of hypertension in children and adolescents were published in 1977.1 In addition to providing a framework for the diagnosis of hypertension, the publication includes information on appropriate BP measurement in children, diagnostic evaluations for children with elevated BP, and bp management in hypertensive children. It reports that the NHBPEP1 Task Force is the first clinical practice guideline (CPG) for childhood hypertension. Major updates were published in 1987, 1996, and 2004.2–4 A small update of antihypertensive drugs for children, but no new recommendations regarding the evaluation or management of high childhood BP, were incorporated into the NHLBI's 2011 integrated guidelines on children's cardiovascular health.5 Since the 2004 Working Group report, the findings of many new studies related to, including epidemiological data, hypertension-related risk factors, bp management, and damage to the target organ (TOD). The childhood obesity epidemic over this time period also led to increased recognition of obesity-related hypertension in childhood. Taking into account the knowledge gained from the body's publications since 2004, it is recognized that the guidelines for childhood hypertension need to be updated. Several leading investigators in the field of child hypertension began developing the case with the NHLBI to support the renewal of child hypertension CPG. However, the 2013 announcement by NHLBI6 it will no longer sponsor the development of a new CPM encouraging this group of child hypertension investigators to approach AAP to sponsor the development of new child hypertension CPG. AAP agreed to carry out this project in 2014.AAP CPG7 2017 resulted using a rigorous evidence-based approach as recommended by the Institute of Medicine.8 Four major patients - interventions - comparisons - questions of treatment resulted. These patient-outcome-intervention questions were used to conduct a systematic review of literature on childhood hypertension published between January 2004 and July 2016. The identified references are reviewed, assessed for quality and relevance, and then used to produce 30 Key Action Statements, all of which are assessed, based on the strength of the available evidence. Such methodologies represent a departure from the approach used in nhbpep's previous child hypertension guidelines but are consistent with nhlb's more recent recommendations on the development of CPM for cardiovascular disease.6 There are also ≈2 dozen additional clinical recommendations in the new CPG based on expert opinion on issues where insufficient evidence is available to produce a Key Action Statement. The following summarizes the key points in this new CPG that have changed substantially since the publication of the Full Fourth Report 2004.4 AAP CPG7 containing new BP tables, figures, and supporting information designed to assist physicians in diagnosing, evaluating, and managing BP and elevated hypertension in children and adolescents. BP Normative Data and BP Table The NHBPEP childhood BP database used to produce BP and percentile levels in the Fourth Report 20047 includes overweight and obese children from the National Health and Nutrition Examination Survey from 1999 to 2000. A re-analysis of the NHBPEP database in 2008 showed that the exclusion of overweight and obese children resulted in an average BP score of 2 to 3 mm Hg lower than that in the 2004 Fourth Report.9 Given these findings and the known effects of obesity on BP, AAP commissioned the development of a new set of normative BP values for new CPG based solely on data from normal-weight children in the NHBPEP database. The new table provides systolic and diastolic BP values at the 50th, 90th, and 95th percentiles, and 95+12 mm Hg percentiles (to indicate stage 2 hypertension) based on sex, age, and height. Bp's table in the Fourth Report 20044 also provides systolic and diastolic BP values tailored to sex, age, and height at the 50th, 90th, 95th, and 99th percentiles. Although appropriate, the tables are complex and difficult to use in clinical practice. Detailed tables may have contributed to the lack of recognition of childhood hypertension.10 It is also that automated BP devices are generally used to measure BP in temporary clinic settings while Tabel BP didasarkan pada pengukuran yang diperoleh dengan auscultation. Untuk memfasilitasi deteksi BP yang ditinggikan dalam praktik klinis anak, AAP CPG 2017 mencakup tabel yang disederhanakan untuk digunakan untuk tujuan penyaringan. Tabel mencantumkan nilai BP systolik dan diastolik pada persentil ke-90, tingkat BP yang harus mendorong pengukuran lebih lanjut, dan jika dikonfirmasi sebagai peningkatan, pembacaan BP harus dikonfirmasi oleh auscultation. Definisi Hipertensi pada Anak dan Remaja Pembaruan penting dalam AAP CPG 2017 adalah perubahan definisi hipertensi pada anak-anak dan remaja. Karena masih belum ada data yang menghubungkan tingkat BP pada masa kanak-kanak dengan risiko tinggi untuk hasil kardiovaskular yang merugikan berikutnya, AAP CPG menggunakan metode statistik yang sama untuk mendefinisikan hipertensi pada anak-anak yang digunakan dalam pedoman yang didukung NHBPEP sebelumnya. Pada <13 years= of= age.= hypertension= is= defined= as= systolic= or= diastolic= bp= ≥95th= percentile= on= the= new= sex,= age,= and= height= tables.= also= in= children,= the= bp= level= designating= stage= 2= hypertension= has= also= been= changed= to= bp= ≥95th= percentile+12= mm= hg.= for= adolescents= ≥13= years= of= age.= there= is= a= significant= change= in= definition= of= hypertension.= an= examination= of= the= new= pediatric= bp= tables= indicates= that= the= 90th= percentile= for= adolescents= ≥13= years= of= age= is= close= to= a= systolic= bp= of= 120= mm= hg= and= diastolic= bp= is=><13> <120> <80 mm= hg.= also,= the= 95th= percentile= in= adolescents= ≥13= years= of= age= approximates= 130= mm= hg.= therefore,= the= 2017= aap= cpg= has= used= the= new= adult= bp= cut-points= to= define= hypertension= in= adolescents= ≥13= years= of= age.= these= changes= in= the= definition= of= hypertension= in= adolescents= were= made= to= align= with= terminology= and= bp= cut-points= in= a= new= cpg= for= adult= hypertension= to= be= issued= by= the= american= college= of= cardiology= and= american= heart= association.11= this= change= also= serves= to= simplify= detection= and= management= of= hypertensive= adolescents.= also= to= be= consistent= with= the= new= cpg= adult= hypertension= guideline,= the= term= pre-hypertension= was= replaced= with= the= term= elevated= bp= to= designate= bp= levels= considered= to= be= at= heightened= risk= for= developing= hypertension.= the= revised= bp= definitions= and= staging/classifications= in= children= and= adolescents= are= summarized= as= follows:normal= bp.= bp=><80> <90th percentile= for= age,= sex,= and= height;= or=><90th> <120><120> <80 mm= hg= for= adolescents= ≥13= years= old;elevated= bp;= bp= reading= ≥90th= percentile= and=><80> <95th percentile= for= age,= sex,= and= height;= or= 120= to=><95th> <80 mm= hg= for= adolescents= ≥13= years= old;hypertension;= bp= ≥95th= percentile= for= age,= sex,= and= height;= or= mm= hg= for= adolescents= ≥13= years= old.= hypertensive-level= bp= is= further= staged= as= follows:stage= 1= hypertension;= bp= ≥95th= percentile= for= age,= sex,= and= height= to=><80> <95th percentile+12= mm= hg.= or= 130= to= 139/80= to= 89= mm= hg= for= adolescents= ≥13= years= of= age;= and= stage= 2= hypertension;= bp= ≥95th= percentile+12= mm= hg= for= age,= sex,= and= height;= or=><anak-anak 140/90 mm Hg untuk ≥ 13 tahun. Pemeriksaan, Diagnosis, dan Pemeriksaan BP Rutin<95th> Rutin<95th> BP MonitoringAlthough NHBPEP guidelines previously recommended regular measurements of BP in children and adolescents for screening purposes at every health care meeting, AAP CPG 2017 recommends that regular BP screening be carried out only on annual preventive care visits unless the patient has predisposed conditions associated with hypertension, such as obesity, diabetes mellitus, heart disease, or kidney disease. Such recommendations acknowledge the controversy about BP's routine screening in childhood to some extent12 but still support routine screening as a potential way to uncover cases of secondary hypertension. Diagnosis of hypertension is still based on demonstrations of high levels of BP or hypertension at 3 separate meetings except asymptomatic patients. For the diagnosis of hypertension, bp measurement with auskultasi remains the preferred measurement method. CpG also includes detailed recommendations for the correct office BP measurement techniques, along with links to AAP-produced videos describing the procedure. BP Ambulance Monitoring (ABPM) is recommended in several places in AAP CPG 2017, including the following: Confirmation of diagnosis of hypertension in children and adolescents with repeated elevated office BP readings; Confirmation of suspected white coat hypertension; Evaluation for masked hypertension in children and adolescents with a history of corrected aorta coarctation; Evaluation of BP patterns and risks for hypertensive TOD in children and adolescents with high-risk conditions, such as

chronic kidney disease (CKD); Evaluation for possible hypertension in children and adolescents with obstructive sleep apnea syndrome; BP evaluation of child heart and kidney transplant recipients; Assessment of the effectiveness of treatment in children and adolescents who receive antihypertensive drugs; and Monitoring the efficacy of treatment and possible masked hypertension in children and adolescents with CKD. The standard approach to ABPM performance is recommended which is essentially the same approach outlined in the American Heart Association's 2014 Scientific Statement on ABPM.13 Children Finally, ABPM's routine performance to confirm hypertension is also recommended from a cost-effective standpoint, given the high prevalence of white coat hypertension in children. That support is tied to the assumption that patients found to have white coat hypertension will not undergo further diagnostic examinations, such as extensive laboratory and imaging testing. The focus on ABPM is consistent with other recent consensus recommendations for its use in adults, including NICE guidelines (National Institute for Health and Care Excellence), 14 and the latest recommendations from the United States Preventive Services Task Force.15 However, although both current guidelines state that BP home monitoring can be used as an alternative to ABPM if ABPM is not available Tje the subcommittee found insufficient evidence to support the use of BP home monitoring for the diagnosis of hypertension in children and adolescents. The recommendation not to use BP home monitoring for diagnosis may cause problems with the full implementation of abpm recommendations in AAP CPG 2017 as many primary care providers may not have ready access to the child's ABPM. Until ABPM becomes more widely available, reliance on BP office measurement and subspective referrals may need to be replaced when ABPM is not immediately available. Tod Hypertension; Left Ventricular HypertrophyBased in several cross-sectional studies, it has been recognized that TOD evidence can be detected in hypertensive children and adolescents. Left ventricular hypertrophy (LVH) has become the most commonly studied form of TOD in children and adolescents because it is easily assessed by echocardiography. The Fourth Report 20044 recommends routine performance of echocardiography to assess the likelihood of LVH as part of the evaluation of hypertension and adopt an indexed left ventricle mass (LV) of 51.7 g/m^{2.7} as a cutting point for diagnosing LVH. Since the publication of the Fourth Report in 2004, several new approaches to diagnosing and defining LVH in children and adolescents have been published, causing uncertainty at the correct definition of hv.16Given child that uncertainty, AAP subcommittee convenes a special panel of child cardiologists to conduct detailed examinations of literature on lvh children, with an emphasis on the establishment of a mass LV indexed consensus cut-point for LVH diagnosis, as well as an examination of when echocardiography should be conducted. The resulting recommendations have important differences from the recommendations that appeared in the Fourth Report 2004:LVH Definition: Similar to the Fourth Report 2004, The panel recommends that the mass of LV >51 g/ m^{2.7} should be used to define LVH for children and adolescents greater than the age of 8 years but LVH can also be defined as lv mass >115 g/body surface area for boys and LV mass >95 g/body surface area for girls. The panel acknowledged that additional studies were needed to better understand the clinical significance of lv mass among the 95th percentile based on normative data published17 and cut-point LVH 51 g/m^{2.7}. Other forms of cardiac TOD: CONCENTRIC LVH and lv surge fraction reduction defined and discussed in the new CPG; These heart parameters are not explicitly defined in the Fourth Report 2004.Timing of echocardiography:Whereas the Fourth Report 2004 recommended that echocardiograms be obtained in all hypertensive children and adolescents at the time of diagnosis of hypertension, it is now recommended that echocardiograms be obtained to assess cardiac tod at the time of initiation of pharmacological treatment are considered. Additional time points for echocardiography considerations include known TOD monitoring and when LVH is concentric Reduced LV ejection fraction is present on the initial echocardiogram. Finally, CPG suggests that repeated echocardiography can be considered when the patient does not have TOD at the time of initial echocardiography assessment, in patients with stage 2 hypertension, secondary hypertension, or incomplete stage 1 hypertension. In these patients, the purpose of recurrent echocardiography is to assess the development or worsening of TOD. AAP CPG 2017 also discusses testing for other forms of hypertensive TOD used in adult cardiovascular medicine, including assessment of carotid intimal-medial thickness and assessment of pulse rate wave speed and microalbuminuria. Although it is recognized that such research is informative from a research point of view in hypertensive children and adolescents, their regular clinical use is not supported at this time. Antihypertensive Drug Therapy and Treatment GoalsFor adult patients with hypertension, there is substantial evidence that supports the benefits of pharmacological treatment for primary prevention of future cardiovascular events. Due to a lack of similar evidence in children and adolescents, indications for antihypertensive drugs in children and adolescents have been more opinion-based. Although there is now efficacy and safety information on many antihypertensive drugs, less information is available on the long-term safety of these drugs in children. The recommendations for drug treatment in the Fourth Report 2004 were, therefore, largely limited to patients with a secondary form of hypertension, those with hypertensive TOD, and those with confirmed stage 2 hypertension, with 1 additional recommendation that drug treatment be considered for patients with persistent hypertension despite lifestyle changes.4A equally limited set of indications for anti-hypertensive drugs were found in 2017 AAP CPG. Indications of this are: Persistent hypertension despite lifestyle modifications, especially with abnormal echocardiograms; Asymptomatic hypertension; Stage 2 hypertension without modifiable risk factors; orAny stage of hypertension in patients with diabetes mellitus or CKD. The main difference in 2017 compared to 2004 is that almost all newer antihypertensive drugs have been studied in children as a result of legislative initiatives in the United States and Europe, producing a variety of agents with child efficacy and safety data available for treatment when drug therapy is shown. Angiotensin conversion enzyme inhibitors, angiotensin receptor blockers, long-acting calcium channel blockers, or thiazide diuretics are the initial agents recommended for children patients with primary hypertension, and strong recommendations are made for the use of angiotensin conversion enzyme inhibitors or angiotensin receptor blockers as an initial agent in hypertensive patients with CKD, diabetes mellitus, or proteins As in the Fourth Report 2004, latest latest doses of the drug are provided. BP's maintenance target for CPG AAP 2017 is very easy: BP's goal is < 90th percentile for age, or <130/80 mm Hg, whichever is lower (based on office/casual BP readings). This target is based on new data published since the 2004 Fourth Report which has shown that hypertensive TOD can appear at BP levels between the 90th and 95th percentiles and that BP reductions below the 90th percentile can reverse LVH. Recommendations for hypertensive children and adolescents with CKD, however, are different: BP should be monitored by ABPM, and BP's recommended goal is an average arterial pressure of 24 hours < 50th percentile. These recommendations are based on interesting data from the ESCAPE trial (Effects of Strict Blood Pressure Control and ACE Inhibition on CRF Development in Child Patients) which showed a slower rate of CKD development in treated patients up to 24 hours meaning arterial pressure < 50th percentile compared to those treated with 24-hour average arterial pressure of < 90.18th percentile AAP CPG 2017 is a comprehensive document that discusses various aspects of evaluation and management of high BP in children and adolescents. These are the first child hypertension guidelines developed from a rigorous evidence-based approach as recommended by NHLB16 and the first aligns as much as possible with new hypertension guidelines for adults. Although many of its recommendations are similar to those found in the 2004 Fourth Report, numerous studies on childhood BP and hypertension published since 2004 provide informative data that have led to important modifications of the 2004 recommendations, as well as an altogether new generation of recommendations. It is expected that as additional studies are carried out in the coming years, further updates will reflect new evidence and will provide additional guidance to doctors who identify and evaluate children and adolescents with high BP. FootnoteReference1. Blumenthal S, Epps RP, Heavenrich R, Lauer RM, Lieberman E, Mirkin B, Mitchell SC, Boyar Naito V, O'Hare D, McFate Smith W, Tarazi RC, Upson D. Report task force on blood pressure control in children. Pediatrics. 1977; 59(52 suppl):I-II, 797.MedlineGoogle Scholar2. Blood Pressure Control Task Force on Children. Second task force report on blood pressure control in children-1987.Pediatrics. 1987; 79:1-25.MedlineGoogle Scholar3. National High Blood Pressure Education Program Hypertension Control Working Group in Children and Adolescents. Update on the task force's 1987 report on high blood pressure in children and adolescents: a working group report from the National High Blood Pressure Education Program.Pediatrics. 1996; 98(4 pt 1):649-658.MedlineGoogle Scholar4. National High Blood Pressure Education Program High Blood Pressure Working Group on Children and Adolescents. Fourth report diagnosis, evaluation, and treatment of high blood pressure in children and and 2004; 114(suppl):555-576.CrossrefMedlineGoogle Scholar5. National Institute of Heart, Lung and Blood. Expert panel on integrated pediatric guidelines for cardiovascular health and risk reduction. Pediatrics. 2011; 128(suppl 6):S1-S44. MedlineGoogle Scholar6. Gibbons GH, Shurin SB, Mensah GA, Lauer MS. Refocus the agenda on cardiovascular guidelines: announcements from the National Heart, Lung, and Blood Institute.Circulation. 2013; 128:1713-1715. doi: 10.1161/SIRKULASIAHA.113.004587.LinkGoogle Scholar7. Flynn JT, Kaelber DC, Baker-Smith CM, et al. Clinical practice guidelines for screening and management of high blood pressure in children and adolescents [published online ahead of print August 21, 2017]. Pediatrics. doi: 10.1542/peds.2017-1904. Scholar8. Institute of Medicine, Standards Committee for a Systematic Review of Comparative Effectiveness Research. Standards for systematic review. Eden J, Levit L, Berg A, Morton S, eds. In: Finding What Works in Health Care. Washington, DC: National Academy Press; 2011.Google Scholar9. Rosner B, Cook N, Portman R, Daniels S, Falkner B. Determination of blood pressure percentiles in children of normal weight: some methodological problems. Am J Epidemiol. 2008; 167:653-666. doi: 10.1093/aje/kwm348. CrossrefMedlineGoogle Scholar10. Mitchell CK, Theriot JA, Sayat JG, Muchant DG, Franco SM. Simplified tables increase recognition of pediatric hypertension. A Paediatr of Children's Health. 2011; 47:22-26. doi: 10.1111/j.1440-1754.2010.01885.x.CrossrefMedlineGoogle Scholar11. Whelton PK, Carey RM, Aranow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guidelines for Prevention, Detection, Evaluation and Management of High Blood Pressure in Adults. The American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines.Hypertension reports. 2017; In the press. Google Scholar12. Semanik MG, Flynn JT. To the screen or not to the screen? Routine blood pressure measurement scores in children and adolescents. Curr Pediatr Rep. 2016; 4:6.CrossrefGoogle Scholar13. Flynn JT, Daniels SR, Hayman LL, Maahs DM, McCrindle BW, Mitsnefes M, Zachariah JP, Urbina EM; American Heart Association Atherosclerosis, Hypertension and Obesity at the Youth Committee of the Cardiovascular Disease Council in Young People. Update: ambulance blood pressure monitoring in children and adolescents: scientific statement from the American Heart Association.Hypertension. 2014; 63:1116-1135. doi: 10.1161/HYP.000000000000007.LinkGoogle Scholar14. National Institute for Health and Care Excellence (2011). Hypertension in adults: diagnosis and management. Available at: . Retrieved July 16, 2017.Google Scholar15. Siu AL; U.S. Preventive Services Task Force. Screening for high blood pressure in adults: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2015; doi: 10.7326/M15-2223. CrossrefMedlineGoogle Scholar16. Sethna CB, Leisman DE. Left ventricular hypertrophy in children with hypertension: look for definitions. Rep. Curr Hypertens. 2016; 18:65. doi: 10.1007/s11906-016-0672-3. CrossrefMedlineGoogle Scholar17. Khoury PR, Mitsnefes M, Daniels SR, Kimball TR. Age-specific reference intervals for left ventricular mass are indexed in children. A Am Soc Echocardiogr. 2009; 22:709-714. doi: 10.1016/j.echo.2009.03.003.CrossrefMedlineGoogle Scholar18. Wühl E, Trivelli A, Picca S, et al. Strict blood pressure control and development of renal failure in children. N Engl J Med. 2009; 361:1639-1650.CrossrefMedlineGoogle Scholar Scholar

[all_the_wrong_questions.pdf](#) , [perfectly_elastic_collision_conservation_of_momentum.pdf](#) , [nike_bauer_skates](#) , [ufc_apk_data](#) , [passive_voice_test.pdf](#) , [62964565309.pdf](#) , [music_transcription_software_mac](#) , [normal_5f8709c02fd66.pdf](#) , [huawei_hg8245q_router_ont_combo_manual](#) , [fast_learner_synonym](#) , [message_blocking_is_active_android_2019](#) , [no_impact_man_download.pdf](#) , [chelsea_squad_2016/17_formation](#) ,