This module will demonstrate effective ways of searching the journal literature using PubMed.
After consulting textbooks to get background/overview information, you can search journal articles for specific information.

The journal literature is useful in looking for current information on treatment issues, since the majority of the articles that are published focus on therapy topics.

MEDLINE, a database from the National Library of Medicine, is a key database for identifying biomedical journal articles. It is available through two different interfaces, Ovid and PubMed. Since Ovid and PubMed work differently, it can be helpful to run your search in each because you may retrieve some different articles.

This module only covers PubMed. If you would like to learn more about searching Ovid, there is an optional tutorial available, Ovid MEDLINE Search Features.
Although PubMed is freely available, you need to use the library’s customized link to PubMed to access the full text of the journals that the library purchases.
First, let's search for articles about physical activity.

When you are searching PubMed, use synonyms for your search terms. Think about any words an author may use for what you are looking for.

Type sports OR activity OR exercise in the PubMed search box below and click Search.

Now type Marfan Syndrome in the search box and click Search.
Let's take a look at using the Advanced page to combine searches. Select the Advanced link above.

The PubMed Advanced Search Builder page appears. You could start your search on this page by using the Builder tool to combine search terms.
PubMed Advanced Search Builder

Use the builder below to create your search

Builder

AND

Search

History

Search Add to builder Query Items found Time

#2 Add Search marfan syndrome 6256 12:09:53
#1 Add Search sports OR activity OR exercise 2389453 12:09:23

You can also use this page to view your search history and rerun previous searches.

Let's combine our searches.
Select the Add link next to the marfan syndrome search.
PubMed Advanced Search Builder

marfan syndrome

Builder
All Fields ▼ marfan syndrome
AND ▼ All Fields ▼ sports OR activity OR exercise

Search
History
Add to builder
Builder
All Fields ▼ marfan syndrome
AND ▼ All Fields ▼ sports OR activity OR exercise
Search
Add to builder
Builder
All Fields ▼ marfan syndrome
AND ▼ All Fields ▼ sports OR activity OR exercise
Search
Add to builder
PubMed Advanced Search Builder

(marfan syndrome) AND (sports OR activity OR exercise)

Builder

| All Fields | marfan syndrome |
| All Fields | sports OR activity OR exercise |

Search

Finally, click the Search button.

History

<table>
<thead>
<tr>
<th>Search</th>
<th>Add to builder</th>
<th>Query</th>
<th>Items found</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>#2</td>
<td>Add</td>
<td>Search marfan syndrome</td>
<td>9258</td>
<td>12:09:53</td>
</tr>
<tr>
<td>#1</td>
<td>Add</td>
<td>Search sports OR activity OR exercise</td>
<td>2233</td>
<td>12:09:23</td>
</tr>
</tbody>
</table>

PubMed Advanced Search Results

Search results

Items: 1 to 20 of 216

We retrieved 216 citations.

1. Abnormal heart rate recovery and deficient chronotropic response after submaximal exercise in young Marfan syndrome patients.
   Pereira P, Canhao AC, Perez AB, Medeiros WM.


3. Fibrillin-1 Regulator: Skeletal Stem Cell Differentiation by Modulating TGFβ.
   J Bone Miner Res. 2015 Jul 18; 30(7):1278-90. [Epub ahead of print]

Find related data

Database

Find item

Search details

("marfan syndrome" [Mesh Terms] OR (marfan"[All Fields] AND "syndrome")
Looking through the first few results, many of the titles do not seem relevant to exercise recommendations.
After scrolling down the page, the "Search details" section appears on the right. The "Search details" section lets you know what's going on in the background during a search of PubMed. Select the See more... link below the "Search details" box to view all of the search terms.
In the Translations box below, you can see that PubMed automatically mapped our search terms to medical subject headings (MeSH).

When you check the search details, you want to see your search terms mapping to a MeSH Term. MeSH terms provide a consistent way to retrieve information that may use different terminology to describe the same concepts.

Our search term Marfan syndrome was mapped to "marfan syndrome" [MeSH Terms].

PubMed also searched for marfan syndrome to appear as a phrase or two separate words in the citation or abstract.

PubMed took our search term marfan syndrome and ran three different searches using this one concept.
Our search term sports was mapped to “sports” [MeSH Terms].

Our search term activity was mapped to "motor activity" [MeSH Terms].

Our search term exercise was mapped to “exercise” [MeSH Terms].

Sometimes PubMed will map your search terms to concepts that you do not want.

Motor activity [MeSH] is too broad of a search term. Activity as a keyword appearing anywhere in the citation and abstract is also too broad.

Both search terms are probably the source of our irrelevant results, and we should remove them from this search.
**PubMed Module**

Type "sports OR exercise" in the search box and click Search.

Select the Advanced link above, so we can combine this search with our original marfan syndrome search.
Select the Add link next to the sports OR exercise search.

Next, select the Add link next to the marfan syndrome search.
PubMed Advanced Search Builder

((sports OR exercise)) AND marfan syndrome

Builder

All Fields ▼ sports OR exercise
AND ▼ All Fields ▼ marfan syndrome
AND ▼ All Fields ▼ marfan syndrome

Finally, click the Search button.

PubMed.gov

By removing "activity" from our search, we narrowed our search from 216 to 106 results.

It is important to view the "Search details" to check for two things:
- PubMed mapped your search terms to MeSH headings.
- PubMed did not add any unwanted terms/concepts to your search.

Search results
Items: 1 to 20 of 106

1. Abnormal heart exercise in your... Pares P. Cavanagh,... Cardiol Young. 2011. PMID: 25628366 Similar articles


The fifth result looks promising. The information we are looking for may have been published as a practice guideline. Practice guidelines can be useful resources because they summarize or draw conclusions based on original research. However, when reading a practice guideline, it is necessary to look for any potential conflicts of interest. What methods did the authors use to analyze the evidence?

- Canadian Cardiovascular Society position statement on the management of thoracic aortic disease.

- Multidisciplinary practice guideline Marfan syndrome.

We could narrow our search further by adding the words "practice guideline" to our search. Another option is using the Article types filter.
Practice guideline now appears as an option on the left. We still need to apply the filter to our search results.

Select Practice Guideline from the list of Article types.
Recommendations for physical activity and recreational sports participation for young patients with genetic cardiovascular diseases.


Abstract
A group of relatively uncommon but important genetic cardiovascular diseases (GCVs) are associated with increased risk for sudden cardiac death during exercise, including hypertrophic cardiomyopathy, long-QT syndrome, Marfan syndrome, and arrhythmogenic right ventricular cardiomyopathy. These conditions, characterized by diverse phenotypic expression and genetic substrates, account for a substantial proportion of unexpected and usually arrhythmia-based fatal events during adolescence and young adulthood. Guidelines are in place governing eligibility and disqualification criteria for competitive athletes with these GCVs (eg, Bethesda Conference No. 26 and its update as Bethesda Conference No. 36 in 2005). However, similar systematic recommendations for the much larger population of patients with GCVD who are not trained athletes, but nevertheless wish to participate in any of a variety of recreational physical activities and sports, have not been available. The practicing clinician is frequently confronted with the dilemma of designing noncompetitive exercise programs for athletes with GCVD after disqualification from competition, as well as for those patients with such conditions who do not aspire to organized sports. Indeed, many asymptomatic (or mildly symptomatic) patients with GCVD desire a physically active lifestyle with participation in recreational and leisure-time activities to take advantage of the many documented benefits of exercise. However, to date, no reference document has been available for ascertaining which types of physical activity could be regarded as either prudent or inadvisable in these subgroups of patients. Therefore, given this clear and present need, this American Heart Association consensus document was constructed, based largely on the experience and insights of the expert panel, to offer recommendations governing recreational exercise for patients with known GCVDs.
The first 5 citations are listed.
Select the See all link to view the full list of related citations.

Our original citation is listed first, followed by the most similar articles.


Recommendations for physical activity and recreational cardiovascular diseases.
Maron BJ, Chaitman BR, Ackerman MJ, Bayés de Luna AD, DJ. Estes NA 3rd, Araujo CG, Liang DH, Mitten MJ, Myers JA, Van Camp SP. Working Groups of the American Heart Association Council on Cardiac Rehabilitation, and Prevention; Councils on Clinical Cardiology and Cardiovascular Disease in the Young.
PmID:15184597 Free Article
Similar articles

Recommendations for participation in competitive sport and leisure-time physical activity in individuals with cardiomyopathies, myocarditis and pericarditis.
PmID:17141115 Free Article
Similar articles

Arrhythmias and sudden cardiac death in elite athletes. American College of Cardiology. 15th Bethesda Conference.
Garson A Jr.
PmID:8708373

Recommendations for participation in leisure-time physical activity and competitive sports in patients with arrhythmias and potentially arrhythmogenic conditions. Part I. Supraventricular arrhythmias and pacemakers.
PmID:16074135 Free Article
Similar articles

Recommendations and considerations related to preparticipation screening for cardiovascular abnormalities in competitive athletes. 2007 update: a scientific statement from the American Heart Association Council on Nutrition, Physical Activity, and Metabolism; endorsed by the American College of Cardiology Foundation.
PmID:18144926 Free Article
Similar articles

Here are some other citations we retrieved.

Recommendations for the management of individuals with acquired valvular heart diseases who are involved in leisure-time physical activities or competitive sports.
PmID:10816175 Free Article
Similar articles
PubMed has some built-in search filters you can use to help focus your search results. Under PubMed Tools, select Clinical Queries.

### PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use PubMed directly.

Please enter search term(s) and click Search.

**Clinical Study Categories**
- Systematic Reviews
- Medical Genetics

There are three different types of search filters available on this page:
- Clinical Study Categories
- Systematic Reviews
- Medical Genetics
PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use PubMed directly.

Please enter search term(s)

Clincial Study Categories

This column displays citations filtered to a specific clinical study category and scope. These search filters were developed by Haynes RB et al. See more filter information.

Systematic Reviews

This column displays citations for systematic reviews, meta-analysis, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. See filter information or additional related sources.

Medical Genetics

This column displays citations on genetics. See more filter information.

You are here: NCBI > Literature > PubMed

GETTING STARTED

NCBI Education

NCBI Help Manual

NCBI Handbook

Training & Tutorials

Submit Data

The Clinical Study Categories are specialized search queries that have a built-in search filter based on the research of Dr. R. Brian Haynes at McMaster University in Canada.

These search filters limit your results to articles reporting research conducted with specific methodologies, including those that report applied clinical research.

Continue
PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use PubMed directly.

Select the filter information link on the left to see what PubMed adds behind the scenes to your search terms.

There are five filter categories available: therapy, diagnosis, etiology, prognosis, and clinical prediction guides.
### Medical Genetics Filters

**Systematic Reviews Search Filter**

#### Clinical Queries using Research Methodology Filters

<table>
<thead>
<tr>
<th>Category</th>
<th>Optimized For</th>
<th>Sensitive: Specific</th>
<th>PubMed Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>specific/narrow</td>
<td>95%:97%</td>
<td>(randomized controlled trial[PubMed Type] OR randomized[TitAbstract] AND controlled[TitAbstract])</td>
</tr>
<tr>
<td>diagnosis</td>
<td>sensitive/broad</td>
<td>94%:74%</td>
<td>(sensitivity[TitAbstract] OR specificity[Mesh Terms] OR diagnostic[TitAbstract] OR diagnostic[Mesh Terms] OR diagnostic*[TisAbstract])</td>
</tr>
<tr>
<td></td>
<td>specific/narrow</td>
<td>96%:83%</td>
<td>(specific value[TitAbstract] OR sensitivity[TitAbstract] OR specificity[Mesh Terms])</td>
</tr>
<tr>
<td>prognosis</td>
<td>sensitive/broad</td>
<td>95%:90%</td>
<td>(predictive value of test[TitAbstract] OR score[TitAbstract] OR receiver operated characteristic[Mesh Terms])</td>
</tr>
<tr>
<td></td>
<td>specific/narrow</td>
<td>96%:73%</td>
<td>(validation[TitAbstract] OR validate[TitAbstract])</td>
</tr>
</tbody>
</table>

For example, the therapy category adds search terms such as clinical trial, random allocation, and therapeutic use to your search terms.

### Plus, there are 2 scope options available, sensitive/broad or specific/narrow, which you can use to increase or decrease the number of results.

- **Sensitive/Broad** retrieves more relevant articles and some less relevant articles.
- **Specific/Narrow** retrieves mostly relevant articles, possibly omitting a few relevant articles.
PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use PubMed directly.

Please enter search term(s) and search.

Clinical Study Categories | Systematic Reviews | Medical Genetics
--- | --- | ---

**Clinical Study Categories**
- Gene
- Protein
- Sequence Analysis
- Taxonomy
- Variation

**Systematic Reviews**
- BLAST
- Genome
- SNP
- Protein
- PubChem

**Medical Genetics**
- Gene Expression Omnibus
- Map Viewer
- Human Genome
- Mouse Genome
- Influenza Virus
- Primers/BLAST
- Sequence Read Archive

**Let's look for therapy articles discussing Marfan syndrome and the aortic root or aneurysm.**

**Default settings for the Clinical Study Categories are therapy and sensitive/broad search. You can select a different filter after running a search.**

**FEATURED**
- Genetic Testing Registry
- PubMed Health
- Gene
- Genome
- SNP
- Protein
- PubChem

**USC School of Medicine Library**

**PubMed Module**
PubMed Clinical Queries

Results of searches on this page are limited to specific clinical research areas. For comprehensive searches, use PubMed directly.

[aortic OR aneurysm] AND marfan syndrome

Clinical Study Categories

Category: Therapy
Scope: Broad

Results: 5 of 469

Efficacy of lisinopril vs. atenolol for the prevention of aortic dilatation in Marfan syndrome: a randomized clinical trial. 

Anesthetic Management of a Patient Complicated with Marfan Syndrome and Suffering from Stanford Type A Aortic Dissection during Pregnancy. 

Effect of personalized external aortic root support on aortic root motion and dilation in Marfan syndrome patients. 
Izgi C, Nylander E, Alpernare C, Branger AS, Poppe J, Treu F, Polewski R. 

Comparison of Long-Term Risk of Thoracic Aortic Aneurysm and Dissection in Patients With Bicuspid Aortic Valve and Marfan Syndrome After Aortic Valve Replacement. 
Patal HJ. 

Long-Term Risk for Aortic Complications After Aortic Valve Replacement in Patients With Bicuspid Aortic Valve Versus Marfan Syndrome. 
Izgi C, Nylander E, Alpernare C, Branger AS, Poppe J, Treu F, Polewski R. 

See all (469)
A systematic review of the pharmacological management of aortic root dilation in Marfan syndrome.

Thakur V, Rankin KN, Hartling L, Mackie AS.

PMB: 2302542

Similar articles

An approach to finding related articles (instead of using the Similar articles link) is to view the MeSH terms (Medical Subject Headings) assigned to the article.

Genome-wide association study identifies a susceptibility locus for thoracic aortic aneurysms and aortic dissections spanning FBN1 at 15q21.1.


Nat Genet. 2011 Sep;43(9):996-1000. doi: 10.1038/ng.904.
PMB: 21099107

Click on the title of the 16th citation, A systematic review of the pharmacological management... to view the abstract and related information.

Advanced in aortic root surgery.

Ramlawi B, Garcia-Morales LJ.

Cardiol Young. 2011 Jul-Sep;21(5):48-52. Review.
PMB: 21979129

Similar articles

Genome-wide association study identifies a susceptibility locus for thoracic aortic aneurysms and aortic dissections spanning FBN1 at 15q21.1.


Nat Genet. 2011 Sep;43(9):996-1000. doi: 10.1038/ng.904.
PMB: 21099107

Free PMC Article

Similar articles
A systematic review of the pharmacological management of aortic root dilation in Marfan syndrome.

BACKGROUND: Marfan syndrome causes aortic dilation leading to dissection and death. This systematic review examined the use of beta-blockers, angiotensin-converting enzyme inhibitors, and angiotensin II receptor blockers in the management of aortic dilation in this disease.

METHODS: We searched four databases—Medline, EMBASE, Web of Science, and The Cochrane Central Register of Controlled Trials—two conference proceedings, references of retrieved articles, and a web-based trial registry. The primary outcome was mortality. The secondary outcomes were aortic dissection, need for elective surgical repair, change in aortic dilation, and adverse events. Two reviewers selected studies, abstracted data, and assessed study quality. Meta-analyses were not performed because of study heterogeneity.

RESULTS: A total of 18 studies were included—12 completed and six in progress. Of the completed studies, three before-and-after treatment, one prospective cohort, three retrospective cohorts, and two randomised control trials examined beta-blockers; one randomised and one non-randomised trial examined angiotensin-converting enzyme inhibitors; and one retrospective cohort study examined angiotensin II receptor blockers. Studies in progress are all randomised trials. Mortality was not impacted by drug therapy, although studies were underpowered with respect to this outcome. All drug classes were associated with a decrease in the rate of aortic dilation (angiotensin-converting enzyme inhibitors or angiotensin II receptor blockers—beta-blockers), none had an impact on other secondary outcomes.

CONCLUSIONS: On the basis of existing evidence, beta-blockers, angiotensin-converting enzyme inhibitors, and angiotensin II receptor blockers show the progression of aortic dilation in Marfan syndrome. Angiotensin-converting enzyme inhibitors and angiotensin II receptor blockers may have more effect than beta-blockers; however, more methodologically rigorous studies currently in progress are needed to evaluate the impact of drug therapy on clinical outcomes.

PMID: 23083542 [PubMed - indexed for MEDLINE]
During this module, we used the Advanced Search Builder to combine searches, viewed the MeSH terms for an article, used the Similar articles tool, and applied the Clinical Queries filters to a search.
Remember the link to access the Clinical Queries filters is at the bottom of the PubMed homepage.