# Install R package ctrdata

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## Install package ctrdata on an R system

The R Project website (https://www.r-project.org/) provides installers for the R system. It can be used with software products and graphical user interfaces such as R Studio, or Microsoft R Open, or from Visual Studio Code.

General information on the ctrdata package is available here: https://rfhb.github.io/ctrdata/.

In R, execute:

```
install.packages("ctrdata")
```

For using the development version of package ctrdata, install from GitHub:

```
# install package under development
install.packages(c("remotes"))
remotes::install_github("rfhb/ctrdata", dependencies = TRUE, build_vignettes = TRUE)
```

Either of the above should install package ctrdata into the user's library.

#### Internet access via proxy

Functions in package ctrdata that start with ctr... require access to trial registers over the internet via the https protocol. Many organisations use transparent proxies that may *not* require users to do any configurations. However, if necessary, package ctrdata can use proxy settings set by users in their R session such as follows:

```
Sys.setenv(https_proxy = "your_proxy.server.domain:8080") # if needed
Sys.setenv(https_proxy_user = "your_userid:your_password") # if needed
```

#### Databases to use

At this time, a PostgreSQL, DuckDB, an SQLite or a MongoDB (local or remote) database can be used with the package ctrdata. A full SQLite database is provided in the R package RSQLite. Suggested installation instructions for PostgreSQL are here and for a local MongoDB server are here; a remote MongoDB database server is accessible here. See here for a speed comparison of the databases; recommended: DuckDB, PostgreSQL or MongoDB local server.

Purpose	Function call
Create SQLite database connection	dbc <- nodbi::src_sqlite(dbname =
	"name_of_my_database", collection =
	"name_of_my_collection")
Create MongoDB database connection	dbc <- nodbi::src_mongo(db =
	"name_of_my_database", collection =
	"name_of_my_collection")
Create <b>PostgreSQL</b> database connection	<pre>dbc &lt;- nodbi::src_postgres(dbname =</pre>
	"name_of_my_database");    dbc[["collection"]]
	<pre>&lt;- "name_of_my_collection"</pre>
Create $\mathbf{DuckDB}$ database connection	dbc <- nodbi::src_duckdb(dbname =
	"name_of_my_database", collection =
	"name_of_my_collection")
Use connection with ctrdata functions	ctrdata::{ctrLoadQueryIntoDb,
	dbQueryHistory, dbFindIdsUniqueTrials,
	<pre>dbFindFields, dbGetFieldsIntoDf}(con = dbc,</pre>
	)

### Attach package ctrdata

After completing the installation, attach the package from the user's library. This will also check the availability of the additional installation requirements as mentioned above:

#### library(ctrdata)

Remember to respect the registers' terms and conditions (see ctrOpenSearchPagesInBrowser(copyright = TRUE)). Please cite this package in any publication as follows: Ralf Herold (2024). ctrdata: Retrieve and Analyze Clinical Trials in Public Registers. R package version 1.17.2. https://cran.r-project.org/package=ctrdata