

## The Type Hierarchy

Here is the entire hierarchy in a single file.

Types that have multiple parents are expanded out only once and have an asterisk

### Data Type

Boolean

Date

DateTime

Number

Float

Integer

Text

URL

Time

Thing: [additionalType](#), [description](#), [image](#), [name](#), [url](#)

CreativeWork: [about](#), [accountablePerson](#), [aggregateRating](#), [alternativeHeadline](#), [associatedMedia](#), [audience](#), [audio](#), [author](#), [award](#), [awards](#), [comment](#), [contentLocation](#), [contentRating](#), [contributor](#), [copyrightHolder](#), [copyrightYear](#), [creator](#), [dateCreated](#), [dateModified](#), [datePublished](#), [discussionUrl](#), [editor](#), [encoding](#), [encodings](#), [genre](#), [headline](#), [inLanguage](#), [interactionCount](#), [isFamilyFriendly](#), [keywords](#), [mentions](#), [offers](#), [provider](#), [publisher](#), [publishingPrinciples](#), [review](#), [reviews](#), [sourceOrganization](#), [text](#), [thumbnailUrl](#), [version](#), [video](#)

Article: [articleBody](#), [articleSection](#), [wordCount](#)

BlogPosting

NewsArticle: [dateline](#), [printColumn](#), [printEdition](#), [printPage](#), [printSection](#)

ScholarlyArticle

MedicalScholarlyArticle: [citation](#), [publicationType](#)

Blog: [blogPost](#), [blogPosts](#)

Book: [bookEdition](#), [bookFormat](#), [illustrator](#), [isbn](#), [numberOfPages](#)

Comment

Diet: [dietFeatures](#), [endorsers](#), [expertConsiderations](#), [overview](#), [physiologicalBenefits](#), [proprietaryName](#), [risks](#)

ExercisePlan: [activityDuration](#), [activityFrequency](#), [additionalVariable](#), [exerciseType](#), [intensity](#), [repetitions](#), [restPeriods](#), [workload](#)

ItemList: [itemListElement](#), [itemListOrder](#)

Map

MediaObject: [associatedArticle](#), [bitrate](#), [contentSize](#), [contentUrl](#), [duration](#), [embedUrl](#), [encodesCreativeWork](#), [encodingFormat](#), [expires](#), [height](#), [interactionCount](#), [offers](#), [playerType](#), [regionsAllowed](#), [requiresSubscription](#), [uploadDate](#), [width](#)

AudioObject: [transcript](#)

ImageObject: [caption](#), [exifData](#), [representativeOfPage](#), [thumbnail](#)

MusicVideoObjectVideoObject: caption, productionCompany, thumbnail, transcript, videoFrameSize, videoQualityMovie: actor, actors, director, duration, musicBy, producer, productionCompany, trailerMusicPlaylist: numTracks, track, tracksMusicAlbum: byArtistMusicRecording: byArtist, duration, inAlbum, inPlaylistPaintingPhotographRecipe: cookingMethod, cookTime, ingredients, nutrition, prepTime, recipeCategory, recipeCuisine, recipeInstructions, recipeYield, totalTimeReview: itemReviewed, reviewBody, reviewRatingSculptureSoftwareApplication: applicationCategory, applicationSubCategory, applicationSuite, countriesNotSupported, countriesSupported, device, downloadUrl, featureList, fileFormat, fileSize, installUrl, memoryRequirements, operatingSystem, permissions, processorRequirements, releaseNotes, requirements, screenshot, softwareVersion, storageRequirementsMobileApplication: carrierRequirementsWebApplication: browserRequirementsTVEpisode: actor, actors, director, episodeNumber, musicBy, partOfSeason, partOfTVSeries, producer, productionCompany, trailerTVSeason: endDate, episode, episodes, numberOfEpisodes, partOfTVSeries, seasonNumber, startDate, trailerTVSeries: actor, actors, director, endDate, episode, episodes, musicBy, numberOfEpisodes, producer, productionCompany, season, seasons, startDate, trailerWebPage: breadcrumb, isPartOf, lastReviewed, mainContentOfPage, primaryImageOfPage, relatedLink, reviewedBy, significantLink, significantLinks, specialtyAboutPageCheckoutPageCollectionPageImageGalleryVideoGalleryContactPageItemPageMedicalWebPage: aspectProfilePageSearchResultsPageWebPageElementSiteNavigationElementTableWPAdblockWPFooterWPHeaderWPSideBarEvent: attendee, attendees, duration, endDate, location, offers, performer, performers, startDate, subEvent, subEvents, superEventBusinessEventChildrensEventComedyEventDanceEventEducationEventFestival

[FoodEvent](#)[LiteraryEvent](#)[MusicEvent](#)[SaleEvent](#)[SocialEvent](#)[SportsEvent](#)[TheaterEvent](#)[UserInteraction](#)[UserBlocks](#)[UserCheckins](#)[UserComments](#): commentText, commentTime, creator, discusses, replyToUrl[UserDownloads](#)[UserLikes](#)[UserPageVisits](#)[UserPlays](#)[UserPlusOnes](#)[UserTweets](#)[VisualArtsEvent](#)[Intangible](#)[Audience](#)[MedicalAudience](#)[Brand](#): logo[Demand](#): acceptedPaymentMethod, advanceBookingRequirement, availability, availabilityEnds, availabilityStarts, availableAtOrFrom, availableDeliveryMethod, businessFunction, deliveryLeadTime, eligibleCustomerType, eligibleDuration, eligibleQuantity, eligibleRegion, eligibleTransactionVolume, gtin13, gtin14, gtin8, includesObject, inventoryLevel, itemCondition, itemOffered, mpn, priceSpecification, seller, serialNumber, sku, validFrom, validThrough, warranty[Enumeration](#)[BookFormatType](#)[BusinessEntityType](#)[BusinessFunction](#)[DayOfWeek](#)[DeliveryMethod](#)[ParcelService](#)[ItemAvailability](#)[OfferItemCondition](#)[PaymentMethod](#)[CreditCard](#)[QualitativeValue](#): equal, greater, greaterOrEqual, lesser, lesserOrEqual, nonEqual, valueReference[Specialty](#)[MedicalSpecialty](#)[WarrantyScope](#)[JobPosting](#): baseSalary, benefits, datePosted, educationRequirements, employmentType, experienceRequirements, hiringOrganization, incentives, industry, jobLocation, occupationalCategory, qualifications, responsibilities, salaryCurrency, skills, specialCommitments, title, workHours[Language](#)[Offer](#): acceptedPaymentMethod, addOn, advanceBookingRequirement, aggregateRating, availability, availabilityEnds, availabilityStarts, availableAtOrFrom, availableDeliveryMethod, businessFunction, category, deliveryLeadTime, eligibleCustomerType, eligibleDuration, eligibleQuantity, eligibleRegion,

eligibleTransactionVolume, gtin13, gtin14, gtin8, includesObject, inventoryLevel, itemCondition, itemOffered, mpn, price, priceCurrency, priceSpecification, priceValidUntil, review, reviews, seller, serialNumber, sku, validFrom, validThrough, warranty

AggregateOffer: highPrice, lowPrice, offerCount

#### Quantity

Distance

Duration

Energy

Mass

Rating: bestRating, ratingValue, worstRating

AggregateRating: itemReviewed, ratingCount, reviewCount

#### StructuredValue

ContactPoint: contactType, email, faxNumber, telephone

PostalAddress: addressCountry, addressLocality, addressRegion, postalCode, postOfficeBoxNumber, streetAddress

GeoCoordinates: elevation, latitude, longitude

GeoShape: box, circle, elevation, line, polygon

NutritionInformation: calories, carbohydrateContent, cholesterolContent, fatContent, fiberContent, proteinContent, saturatedFatContent, servingSize, sodiumContent, sugarContent, transFatContent, unsaturatedFatContent

OpeningHoursSpecification: closes, dayOfWeek, opens, validFrom, validThrough

OwnershipInfo: acquiredFrom, ownedFrom, ownedThrough, typeOfGood

PriceSpecification: eligibleQuantity, eligibleTransactionVolume, maxPrice, minPrice, price, priceCurrency, validFrom, validThrough, valueAddedTaxIncluded

DeliveryChargeSpecification: appliesToDeliveryMethod, eligibleRegion

PaymentChargeSpecification: appliesToDeliveryMethod, appliesToPaymentMethod

UnitPriceSpecification: billingIncrement, priceType, unitCode

QuantitativeValue: maxValue, minValue, unitCode, value, valueReference

TypeAndQuantityNode: amountOfThisGood, businessFunction, typeOfGood, unitCode

WarrantyPromise: durationOfWarranty, warrantyScope

MedicalEntity: alternateName, code, guideline, medicineSystem, recognizingAuthority, relevantSpecialty, study

AnatomicalStructure: associatedPathophysiology, bodyLocation, connectedTo, diagram, function, partOfSystem, relatedCondition, relatedTherapy, subStructure

Bone

BrainStructure

Joint: biomechanicalClass, functionalClass, structuralClass

Ligament

Muscle: action, antagonist, bloodSupply, insertion, nerve, origin

Nerve: branch, nerveMotor, sensoryUnit, sourcedFrom

Vessel

Artery: arterialBranch, source, supplyTo

LymphaticVessel: originatesFrom, regionDrained, runsTo

Vein: drainsTo, regionDrained, tributary

AnatomicalSystem: associatedPathophysiology, comprisedOf, relatedCondition, relatedStructure, relatedTherapy

MedicalCause: causeOf

MedicalCondition: associatedAnatomy, cause, differentialDiagnosis, epidemiology, expectedPrognosis, naturalProgression, pathophysiology, possibleComplication, possibleTreatment, primaryPrevention, riskFactor, secondaryPrevention,

[signOrSymptom](#), [stage](#), [subtype](#), [typicalTest](#)

[InfectiousDisease](#): [infectiousAgent](#), [infectiousAgentClass](#), [transmissionMethod](#)

[MedicalContraindication](#)

[MedicalDevice](#): [adverseOutcome](#), [contraindication](#), [indication](#), [postOp](#), [preOp](#), [procedure](#), [purpose](#), [seriousAdverseOutcome](#)

[MedicalGuideline](#): [evidenceLevel](#), [evidenceOrigin](#), [guidelineDate](#), [guidelineSubject](#)

[MedicalGuidelineContraindication](#)

[MedicalGuidelineRecommendation](#): [recommendationStrength](#)

[MedicalIndication](#)

[ApprovedIndication](#)

[PreventionIndication](#)

[TreatmentIndication](#)

[MedicalIntangible](#)

[DDxElement](#): [diagnosis](#), [distinguishingSign](#)

[DoseSchedule](#): [doseUnit](#), [doseValue](#), [frequency](#), [targetPopulation](#)

[MaximumDoseSchedule](#)

[RecommendedDoseSchedule](#)

[ReportedDoseSchedule](#)

[DrugCost](#): [applicableLocation](#), [costCategory](#), [costCurrency](#), [costOrigin](#), [costPerUnit](#), [drugUnit](#)

[DrugLegalStatus](#): [applicableLocation](#)

[DrugStrength](#): [activeIngredient](#), [availableIn](#), [strengthUnit](#), [strengthValue](#)

[MedicalCode](#): [codeValue](#), [codingSystem](#)

[MedicalConditionStage](#): [stageAsNumber](#), [subStageSuffix](#)

[MedicalEnumeration](#)

[DrugCostCategory](#)

[DrugPregnancyCategory](#)

[DrugPrescriptionStatus](#)

[InfectiousAgentClass](#)

[MedicalAudience](#)\*

[MedicalDevicePurpose](#)

[MedicalEvidenceLevel](#)

[MedicalImagingTechnique](#)

[MedicalObservationalStudyDesign](#)

[MedicalProcedureType](#)

[MedicalSpecialty](#)\*

[MedicalStudyStatus](#)

[MedicalTrialDesign](#)

[MedicineSystem](#)

[PhysicalActivityCategory](#)

[PhysicalExam](#)

[MedicalProcedure](#): [followup](#), [howPerformed](#), [preparation](#), [procedureType](#)

[DiagnosticProcedure](#)

[PalliativeProcedure](#)

[TherapeuticProcedure](#)

[MedicalRiskEstimator](#): [estimatesRiskOf](#), [includedRiskFactor](#)

[MedicalRiskCalculator](#)

[MedicalRiskScore](#): [algorithm](#)

[MedicalRiskFactor](#): [increasesRiskOf](#)

[MedicalSignOrSymptom](#): [cause](#), [possibleTreatment](#)

[MedicalSign](#): [identifyingExam](#), [identifyingTest](#)

[MedicalSymptom](#)

**MedicalStudy**: outcome, population, sponsor, status, studyLocation, studySubject

**MedicalObservationalStudy**: studyDesign

**MedicalTrial**: phase, trialDesign

**MedicalTest**: affectedBy, normalRange, signDetected, usedToDiagnose, usesDevice

**BloodTest**

**DiagnosticProcedure**\*

**ImagingTest**: imagingTechnique

**MedicalTestPanel**: subTest

**PathologyTest**: tissueSample

**MedicalTherapy**: adverseOutcome, contraindication, duplicateTherapy, indication, seriousAdverseOutcome

**DietarySupplement**: activeIngredient, background, dosageForm, isProprietary, legalStatus, manufacturer, maximumIntake, mechanismOfAction, nonProprietaryName, recommendedIntake, safetyConsideration, targetPopulation

**Drug**: activeIngredient, administrationRoute, alcoholWarning, availableStrength, breastfeedingWarning, clinicalPharmacology, cost, dosageForm, doseSchedule, drugClass, foodWarning, interactingDrug, isAvailableGenerically, isProprietary, labelDetails, legalStatus, manufacturer, mechanismOfAction, nonProprietaryName, overdose, pregnancyCategory, pregnancyWarning, prescribingInfo, prescriptionStatus, relatedDrug, warning

**DrugClass**: drug

**LifestyleModification**

**Diet**\*

**PhysicalActivity**: associatedAnatomy, category, epidemiology, pathophysiology

**ExercisePlan**\*

**PalliativeProcedure**\*

**PhysicalTherapy**

**PsychologicalTreatment**

**RadiationTherapy**

**TherapeuticProcedure**\*

**SuperficialAnatomy**: associatedPathophysiology, relatedAnatomy, relatedCondition, relatedTherapy, significance

**Organization**: address, aggregateRating, brand, contactPoint, contactPoints, duns, email, employee, employees, event, events, faxNumber, founder, founders, foundingDate, globalLocationNumber, hasPOS, interactionCount, isicV4, legalName, location, logo, makesOffer, member, members, naics, owns, review, reviews, seeks, taxID, telephone, vatID

**Corporation**: tickerSymbol

**EducationalOrganization**: alumni

**CollegeOrUniversity**

**ElementarySchool**

**HighSchool**

**MiddleSchool**

**Preschool**

**School**

**GovernmentOrganization**

**LocalBusiness**: branchOf, currenciesAccepted, openingHours, paymentAccepted, priceRange

**AnimalShelter**

AutomotiveBusinessAutoBodyShopAutoDealerAutoPartsStoreAutoRentalAutoRepairAutoWashGasStationMotorcycleDealerMotorcycleRepairChildCareDryCleaningOrLaundryEmergencyServiceFireStationHospital: availableService, medicalSpecialtyPoliceStationEmploymentAgencyEntertainmentBusinessAdultEntertainmentAmusementParkArtGalleryCasinoComedyClubMovieTheaterNightClubFinancialServiceAccountingServiceAutomatedTellerBankOrCreditUnionInsuranceAgencyFoodEstablishment: acceptsReservations, menu, servesCuisineBakeryBarOrPubBreweryCafeOrCoffeeShopFastFoodRestaurantIceCreamShopRestaurantWineryGovernmentOfficePostOfficeHealthAndBeautyBusinessBeautySalonDaySpaHairSalonHealthClubNailSalonTattooParlorHomeAndConstructionBusinessElectricianGeneralContractorHVACBusinessHousePainter

- [Locksmith](#)
  - [MovingCompany](#)
  - [Plumber](#)
  - [RoofingContractor](#)
- [InternetCafe](#)
- [Library](#)
- [LodgingBusiness](#)
  - [BedAndBreakfast](#)
  - [Hostel](#)
  - [Hotel](#)
  - [Motel](#)
- [MedicalOrganization](#)
  - [Dentist](#)
  - [DiagnosticLab: availableTest](#)
  - [Hospital\\*](#)
  - [MedicalClinic: availableService, medicalSpecialty](#)
  - [Optician](#)
  - [Pharmacy](#)
  - [Physician: availableService, hospitalAffiliation, medicalSpecialty](#)
  - [VeterinaryCare](#)
- [ProfessionalService](#)
  - [AccountingService\\*](#)
  - [Attorney](#)
  - [Dentist\\*](#)
  - [Electrician\\*](#)
  - [GeneralContractor\\*](#)
  - [HousePainter\\*](#)
  - [Locksmith\\*](#)
  - [Notary](#)
  - [Plumber\\*](#)
  - [RoofingContractor\\*](#)
- [RadioStation](#)
- [RealEstateAgent](#)
- [RecyclingCenter](#)
- [SelfStorage](#)
- [ShoppingCenter](#)
- [SportsActivityLocation](#)
  - [BowlingAlley](#)
  - [ExerciseGym](#)
  - [GolfCourse](#)
  - [HealthClub\\*](#)
  - [PublicSwimmingPool](#)
  - [SkiResort](#)
  - [SportsClub](#)
  - [StadiumOrArena](#)
  - [TennisComplex](#)
- [Store](#)
  - [AutoPartsStore\\*](#)
  - [BikeStore](#)
  - [BookStore](#)
  - [ClothingStore](#)



[ComputerStore](#)  
[ConvenienceStore](#)  
[DepartmentStore](#)  
[ElectronicsStore](#)  
[Florist](#)  
[FurnitureStore](#)  
[GardenStore](#)  
[GroceryStore](#)  
[HardwareStore](#)  
[HobbyShop](#)  
[HomeGoodsStore](#)  
[JewelryStore](#)  
[LiquorStore](#)  
[MensClothingStore](#)  
[MobilePhoneStore](#)  
[MovieRentalStore](#)  
[MusicStore](#)  
[OfficeEquipmentStore](#)  
[OutletStore](#)  
[PawnShop](#)  
[PetStore](#)  
[ShoeStore](#)  
[SportingGoodsStore](#)  
[TireShop](#)  
[ToyStore](#)  
[WholesaleStore](#)

[TelevisionStation](#)  
[TouristInformationCenter](#)  
[TravelAgency](#)

[NGO](#)

[PerformingGroup](#)

[DanceGroup](#)

[MusicGroup](#): album, albums, musicGroupMember, track, tracks

[TheaterGroup](#)

[SportsTeam](#)

**Person**: additionalName, address, affiliation, alumniOf, award, awards, birthDate, brand, children, colleague, colleagues, contactPoint, contactPoints, deathDate, duns, email, familyName, faxNumber, follows, gender, givenName, globalLocationNumber, hasPOS, homeLocation, honorificPrefix, honorificSuffix, interactionCount, isicV4, jobTitle, knows, makesOffer, memberOf, naics, nationality, owns, parent, parents, performerIn, relatedTo, seeks, sibling, siblings, spouse, taxID, telephone, vatID, workLocation, worksFor

**Place**: address, aggregateRating, containedIn, event, events, faxNumber, geo, globalLocationNumber, interactionCount, isicV4, logo, map, maps, openingHoursSpecification, photo, photos, review, reviews, telephone

[AdministrativeArea](#)

[City](#)

[Country](#)

[State](#)

[CivicStructure](#): openingHours

[Airport](#)

[Aquarium](#)

[Beach](#)

[BusStation](#)

- [BusStop](#)
- [Campground](#)
- [Cemetery](#)
- [Crematorium](#)
- [EventVenue](#)
- [FireStation](#)\*
- [GovernmentBuilding](#)
  - [CityHall](#)
  - [Courthouse](#)
  - [DefenceEstablishment](#)
  - [Embassy](#)
  - [LegislativeBuilding](#)
- [Hospital](#)\*
- [MovieTheater](#)\*
- [Museum](#)
- [MusicVenue](#)
- [Park](#)
- [ParkingFacility](#)
- [PerformingArtsTheater](#)
- [PlaceOfWorship](#)
  - [BuddhistTemple](#)
  - [CatholicChurch](#)
  - [Church](#)
  - [HinduTemple](#)
  - [Mosque](#)
  - [Synagogue](#)
- [Playground](#)
- [PoliceStation](#)\*
- [RVPark](#)
- [StadiumOrArena](#)\*
- [SubwayStation](#)
- [TaxiStand](#)
- [TrainStation](#)
- [Zoo](#)
- [Landform](#)
  - [BodyOfWater](#)
    - [Canal](#)
    - [LakeBodyOfWater](#)
    - [OceanBodyOfWater](#)
    - [Pond](#)
    - [Reservoir](#)
    - [RiverBodyOfWater](#)
    - [SeaBodyOfWater](#)
    - [Waterfall](#)
  - [Continent](#)
  - [Mountain](#)
  - [Volcano](#)
- [LandmarksOrHistoricalBuildings](#)
- [LocalBusiness](#)\*
- [AnimalShelter](#)

AutomotiveBusinessAutoBodyShopAutoDealerAutoPartsStore\*AutoRentalAutoRepairAutoWashGasStationMotorcycleDealerMotorcycleRepairChildCareDryCleaningOrLaundryEmergencyServiceFireStation\*Hospital\*PoliceStation\*EmploymentAgencyEntertainmentBusinessAdultEntertainmentAmusementParkArtGalleryCasinoComedyClubMovieTheater\*NightClubFinancialServiceAccountingService\*AutomatedTellerBankOrCreditUnionInsuranceAgencyFoodEstablishmentBakeryBarOrPubBreweryCafeOrCoffeeShopFastFoodRestaurantIceCreamShopRestaurantWineryGovernmentOfficePostOfficeHealthAndBeautyBusinessBeautySalonDaySpaHairSalonHealthClub\*NailSalonTattooParlorHomeAndConstructionBusinessElectrician\*GeneralContractor\*



StoreAutoPartsStore\*BikeStoreBookStoreClothingStoreComputerStoreConvenienceStoreDepartmentStoreElectronicsStoreFloristFurnitureStoreGardenStoreGroceryStoreHardwareStoreHobbyShopHomeGoodsStoreJewelryStoreLiquorStoreMensClothingStoreMobilePhoneStoreMovieRentalStoreMusicStoreOfficeEquipmentStoreOutletStorePawnShopPetStoreShoeStoreSportingGoodsStoreTireShopToyStoreWholesaleStoreTelevisionStationTouristInformationCenterTravelAgencyResidenceApartmentComplexGatedResidenceCommunitySingleFamilyResidenceTouristAttraction

Product: aggregateRating, brand, color, depth, gtin13, gtin14, gtin8, height, isAccessoryOrSparePartFor, isConsumableFor, isRelatedTo, isSimilarTo, itemCondition, logo, manufacturer, model, mpn, offers, productID, releaseDate, review, reviews, sku, weight, width

IndividualProduct: serialNumberProductModel: isVariantOf, predecessorOf, successorOfSomeProducts: inventoryLevel[Terms and conditions](#)