**Rickettsia**

**[Rickettsia akari](#CausesRickettsialpox)**

**[Rickettsia prowazeki](#LouseBorneTyphus)**

**[Rickettsia typhi](#HumansareAccidentalHost)**

**[Rickettsia rickettsii](#CausesRockyMountainSpottedFever)**

**Rare and Fastidious**

**[Actinobacillus](#SecondintheHACEKgroup)**

**[Eikenella](#FourthintheHACEKgroup)**

**[Cardiobacterium](#ThirdintheHACEKgroup)**

**[Haemophilus aphrophilus](#FirstintheHACEKgroup)**

**[Bartonella Quintana](#CausesTrenchFever)**

**[Orientia (Rickettsia)](#ScrubTyphus)**

**[Capnocytophaga](#GramNegativeFusiformBacilli)**

**[Kingella](#FifthintheHACEKgroup)**

[**Alipia felis**](#CausesCatScratchFever)

**[Bartonella henselae](#CausesCatScratchFever)**

**[Francisella](#GramNegativePleomorphicCoccobacilli)**

**[Pasteurella](#GramNegativeCoccobacilli)**

**[Ehrlichia species](#Ehrlichiosis)**

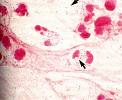
**[Coxiella burnetti](#CausesQueryFever)**

**[Brucella](#GramNegativeCoccobacilli)**

Links will work using Full Screen Reading under View

**Gram negative bacilli**

**[First in the HACEK group](#Haemophilusaphrophilus)**

[](http://images.google.com/imgres?imgurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111images/Unit%202/GS-direct.jpg&imgrefurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111Review/Unit2Reviews/haemophilus_answers.htm&usg=__CBq-UfmeaIsT0emNVfaHwzh9748=&h=301&w=369&sz=38&hl=en&start=6&tbnid=Uwpu81Mp72mAuM:&tbnh=100&tbnw=122&prev=/images?q=Haemophilus+aphrophilus&gbv=2&hl=en&safe=strict&client=dell-usuk&channel=us&sa=G&ad=w5)

**Identification Methods**

**ONPG**

**Catalase Variable**

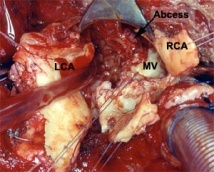
**Oxidase Variable**

[](http://images.google.com/imgres?imgurl=http://lovescupcakes.files.wordpress.com/2008/01/bubbles.jpg&imgrefurl=http://philsbackupsite.wordpress.com/2008/05/page/6/&usg=__nb7UJDgn0MV8Gzgc1coUlTJqeFM=&h=422&w=517&sz=14&hl=en&start=3&um=1&itbs=1&tbnid=nSIhpU-rFiHkDM:&tbnh=107&tbnw=131&prev=/images?q=bubbles&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

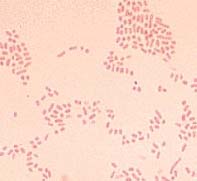
**Diseases**

**Infections of the head and neck following tooth extractions**

**Septicemia & Endocarditis**

**[Second in the HACEK group](#Actinobacillus)**

[](http://phil.cdc.gov/public/1257.htm)

**Identification Methods**

**Indole Negative**

**Nitrite Positive**

**Catalase Positive**

**Oxidase Positive**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[](http://images.google.com/imgres?imgurl=http://lovescupcakes.files.wordpress.com/2008/01/bubbles.jpg&imgrefurl=http://philsbackupsite.wordpress.com/2008/05/page/6/&usg=__nb7UJDgn0MV8Gzgc1coUlTJqeFM=&h=422&w=517&sz=14&hl=en&start=3&um=1&itbs=1&tbnid=nSIhpU-rFiHkDM:&tbnh=107&tbnw=131&prev=/images?q=bubbles&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1) [](http://images.google.com/imgres?imgurl=http://www.uwyo.edu/molb2210_lab/images/nitrate.jpg&imgrefurl=http://www.uwyo.edu/molb2210_lab/info/biochemical_tests.htm&usg=__GSGyF1EfZSOzPKTHLWzJcF9C9D0=&h=306&w=360&sz=26&hl=en&start=30&um=1&itbs=1&tbnid=Cj169tBGO3ua9M:&tbnh=103&tbnw=121&prev=/images?q=nitrite+positive&ndsp=21&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&start=21&um=1)**

**Glucose Fermenter**

[](http://images.google.com/imgres?imgurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Home%20page%20of%20CMB/Images/Bacteria/PR_sugar1.jpg&imgrefurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Price%20list_media.htm&usg=__3Y_GyCP3w-kL9SE7K-lKV4apuqs=&h=2048&w=1536&sz=117&hl=en&start=2&um=1&itbs=1&tbnid=qodtp-bO1ZD1fM:&tbnh=150&tbnw=113&prev=/images?q=glucose+fermentation&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

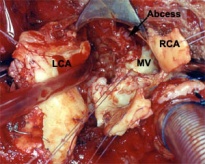
**Diseases**

**Endocarditis**

**Toxins**

**Periodontal Disease**

**Collagenase and Leukotoxin**

[Tooth anatomy](https://health.google.com/health/ref/graphic/1121) 

**[Third in the HACEK group](#Cardiobacterium)**

[](http://images.google.com/imgres?imgurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111images/Unit%202/BpertussisColonies.jpg&imgrefurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111Review/Unit2Reviews/haemophilus_answers.htm&usg=__VfGA5K6nqatUcyCTj_vIByVfHOE=&h=346&w=522&sz=60&hl=en&start=46&um=1&tbnid=C92xZMnxSEQ6DM:&tbnh=87&tbnw=131&prev=/images?q=Cardiobacterium&ndsp=21&hl=en&safe=active&rlz=1T4DKUS_enUS339US339&sa=N&start=42&um=1)

**Identification Methods**

**Oxidase Positive**

**Catalase Negative**

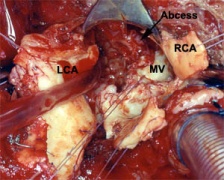
**Spot Indole Negative**

**Indole Positive**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) [http://t1.gstatic.com/images?q=tbn:IyEV0qok3pVDQM:http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg](http://images.google.com/imgres?imgurl=http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg&imgrefurl=http://biochemicaltestsproject.blogspot.com/2009/06/catalase-test_24.html&usg=__qMI6u292OFtvJItqr9MEg7cP2YQ=&h=145&w=320&sz=6&hl=en&start=15&um=1&itbs=1&tbnid=IyEV0qok3pVDQM:&tbnh=53&tbnw=118&prev=/images?q=catalase+negative&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1) [http://t0.gstatic.com/images?q=tbn:e_10vdiZgBRWzM:http://www.pro-lab.com/images/products/cat-misc.jpg](http://images.google.com/imgres?imgurl=http://www.pro-lab.com/images/products/cat-misc.jpg&imgrefurl=http://www.pro-lab.com/products.php&usg=__AVLQvK4pa8AGYFYAdm_k3ZQP8ZQ=&h=111&w=190&sz=32&hl=en&start=2&um=1&itbs=1&tbnid=e_10vdiZgBRWzM:&tbnh=60&tbnw=103&prev=/images?q=spot+indole+negative&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

**Diseases**

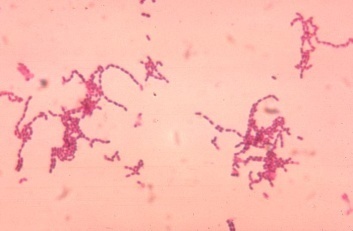
**Endocarditis exclusively in humans**

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**Loves cardiac valves especially aortic**

**[Fourth in the HACEK group](#Eikenella)**

**Human bites/Clenched fist syndrome/Chlorox odor**

****

**Identification Methods**

**Catalase Negative**

**Indole Negative**

**Nitrite Positive**

**Oxidase Positive**

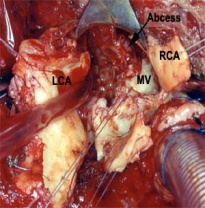
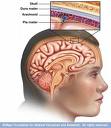
 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[http://t1.gstatic.com/images?q=tbn:IyEV0qok3pVDQM:http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg](http://images.google.com/imgres?imgurl=http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg&imgrefurl=http://biochemicaltestsproject.blogspot.com/2009/06/catalase-test_24.html&usg=__qMI6u292OFtvJItqr9MEg7cP2YQ=&h=145&w=320&sz=6&hl=en&start=15&um=1&itbs=1&tbnid=IyEV0qok3pVDQM:&tbnh=53&tbnw=118&prev=/images?q=catalase+negative&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1) [](http://images.google.com/imgres?imgurl=http://www.uwyo.edu/molb2210_lab/images/nitrate.jpg&imgrefurl=http://www.uwyo.edu/molb2210_lab/info/biochemical_tests.htm&usg=__GSGyF1EfZSOzPKTHLWzJcF9C9D0=&h=306&w=360&sz=26&hl=en&start=30&um=1&itbs=1&tbnid=Cj169tBGO3ua9M:&tbnh=103&tbnw=121&prev=/images?q=nitrite+positive&ndsp=21&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&start=21&um=1)**

**Diseases**

**Meningitis**

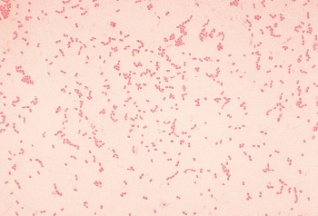
**Endocarditis**

**Periodontal Disease**

**[](http://images.google.com/imgres?imgurl=http://www.enexus.com/gumdisease/graphics/Gums4.jpg&imgrefurl=http://www.enexus.com/gumdisease/&usg=__uJHxAjwTqDdjkhNNpNtL0_UqWt0=&h=390&w=579&sz=38&hl=en&start=10&sig2=P1L0TYrMXsr1l3UkXY2Mxw&um=1&itbs=1&tbnid=hBlSKVXkcwjx3M:&tbnh=90&tbnw=134&prev=/images?q=gingivitis&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1&ei=WuIZS-W3H9GVtgfpxZ3aAw) ** [](http://images.google.com/imgres?imgurl=https://www.bcbsri.com/BCBSRIWeb/images/image_popup/r7_meningitis.jpg&imgrefurl=https://www.bcbsri.com/BCBSRIWeb/images/mayo_popup/Meningitis.jsp&usg=__yucsewCJYg9yOC5vDxGbK25nE2U=&h=462&w=400&sz=21&hl=en&start=1&sig2=MThpFi9VTvrXrihyoVA6YQ&um=1&itbs=1&tbnid=2ORKPrJ7QrVjFM:&tbnh=128&tbnw=111&prev=/images?q=meningitis&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1&ei=BuMZS5KhOJSXtgf_x7TnAw)

**Asaccharolytic**

**[Fifth in the HACEK group](#Kingella)**



**Identification Methods**

**Oxidase Positive**

**Indole Negative**

**Catalase Negative**

**Nitrite Negative**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[http://t1.gstatic.com/images?q=tbn:IyEV0qok3pVDQM:http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg](http://images.google.com/imgres?imgurl=http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg&imgrefurl=http://biochemicaltestsproject.blogspot.com/2009/06/catalase-test_24.html&usg=__qMI6u292OFtvJItqr9MEg7cP2YQ=&h=145&w=320&sz=6&hl=en&start=15&um=1&itbs=1&tbnid=IyEV0qok3pVDQM:&tbnh=53&tbnw=118&prev=/images?q=catalase+negative&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1) [](http://images.google.com/imgres?imgurl=http://www.uwyo.edu/molb2210_lab/images/nitrate.jpg&imgrefurl=http://www.uwyo.edu/molb2210_lab/info/biochemical_tests.htm&usg=__GSGyF1EfZSOzPKTHLWzJcF9C9D0=&h=306&w=360&sz=26&hl=en&start=30&um=1&itbs=1&tbnid=Cj169tBGO3ua9M:&tbnh=103&tbnw=121&prev=/images?q=nitrite+positive&ndsp=21&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&start=21&um=1)**

**Glucose Fermenter**

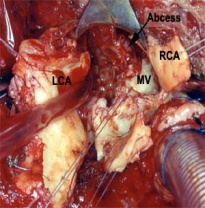
**Diseases**

**Sucrose Fermenter**

[](http://images.google.com/imgres?imgurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Home%20page%20of%20CMB/Images/Bacteria/TSI1%20.jpg&imgrefurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Price%20list_media.htm&usg=__LWD5bEajKr4H-ZBmQsiviNoWqUk=&h=1341&w=1789&sz=125&hl=en&start=35&sig2=4qcJULpV2lcXNyiXsg_rIA&um=1&itbs=1&tbnid=LHs1cAyh587zZM:&tbnh=112&tbnw=150&prev=/images?q=surose+fermenter&ndsp=20&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&start=20&um=1&ei=f-kZS_2VCIa0tgeC3ZDnAw) **[](http://images.google.com/imgres?imgurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Home%20page%20of%20CMB/Images/Bacteria/PR_sugar1.jpg&imgrefurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Price%20list_media.htm&usg=__3Y_GyCP3w-kL9SE7K-lKV4apuqs=&h=2048&w=1536&sz=117&hl=en&start=2&um=1&itbs=1&tbnid=qodtp-bO1ZD1fM:&tbnh=150&tbnw=113&prev=/images?q=glucose+fermentation&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)**

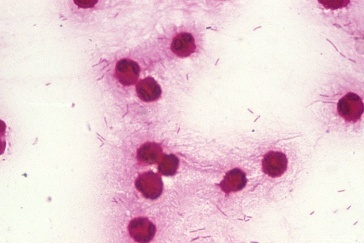
**Infection of the bones and joints in young children**

**Endocarditis**

**** [](http://images.google.com/imgres?imgurl=http://www.public-action.com/SkyWriter/WacoMuseum/library/bones1.jpg&imgrefurl=http://www.public-action.com/SkyWriter/WacoMuseum/library/bones1.html&usg=__qKsxibEzBRU1chzlk3-p7nNAzrA=&h=727&w=411&sz=33&hl=en&start=2&um=1&tbnid=zQ1r1foEFi9L8M:&tbnh=141&tbnw=80&prev=/images?q=bones&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

**[Gram Negative Fusiform Bacilli](#Capnocytophaga)**

**Yellow pigment on SBA**



**Identification Methods**

**Indole Variable**

**Oxidase Negative**

**Catalase Negative**

**Nitrite Positive**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[http://t1.gstatic.com/images?q=tbn:IyEV0qok3pVDQM:http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg](http://images.google.com/imgres?imgurl=http://2.bp.blogspot.com/_AnJT3F68MGg/SkI8AjnzFCI/AAAAAAAAAAU/pu845BkGkBA/s320/Catalase.jpg&imgrefurl=http://biochemicaltestsproject.blogspot.com/2009/06/catalase-test_24.html&usg=__qMI6u292OFtvJItqr9MEg7cP2YQ=&h=145&w=320&sz=6&hl=en&start=15&um=1&itbs=1&tbnid=IyEV0qok3pVDQM:&tbnh=53&tbnw=118&prev=/images?q=catalase+negative&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1) [](http://images.google.com/imgres?imgurl=http://www.uwyo.edu/molb2210_lab/images/nitrate.jpg&imgrefurl=http://www.uwyo.edu/molb2210_lab/info/biochemical_tests.htm&usg=__GSGyF1EfZSOzPKTHLWzJcF9C9D0=&h=306&w=360&sz=26&hl=en&start=30&um=1&itbs=1&tbnid=Cj169tBGO3ua9M:&tbnh=103&tbnw=121&prev=/images?q=nitrite+positive&ndsp=21&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&start=21&um=1)**

**Glucose Fermenter**

**[](http://images.google.com/imgres?imgurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Home%20page%20of%20CMB/Images/Bacteria/PR_sugar1.jpg&imgrefurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Price%20list_media.htm&usg=__3Y_GyCP3w-kL9SE7K-lKV4apuqs=&h=2048&w=1536&sz=117&hl=en&start=2&um=1&itbs=1&tbnid=qodtp-bO1ZD1fM:&tbnh=150&tbnw=113&prev=/images?q=glucose+fermentation&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)**

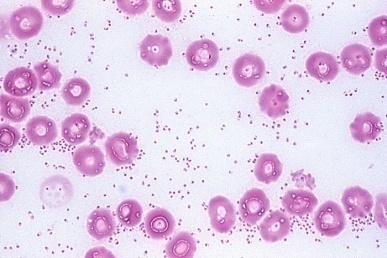
**Disease**

**Periodonitis**

**[Tooth anatomy](https://health.google.com/health/ref/graphic/1121)**

[**Gram Negative Coccobacilli**](#Pasteurella)

**Infected from a bite or scratch**

[](javascript:history.back())

**Identification Methods**

**Catalase Positive**

**Indole Positive**

**Oxidase Positive to Variable**

**Ornithine Positive**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[](http://images.google.com/imgres?imgurl=http://lovescupcakes.files.wordpress.com/2008/01/bubbles.jpg&imgrefurl=http://philsbackupsite.wordpress.com/2008/05/page/6/&usg=__nb7UJDgn0MV8Gzgc1coUlTJqeFM=&h=422&w=517&sz=14&hl=en&start=3&um=1&itbs=1&tbnid=nSIhpU-rFiHkDM:&tbnh=107&tbnw=131&prev=/images?q=bubbles&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)** [](http://images.google.com/imgres?imgurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/CMB%20photo/ODC.jpg&imgrefurl=http://www.ams.cmu.ac.th/mt/clinmcrb/CMBwebsite/Price%20list_media.htm&usg=__nqK_4pjfBAn3A2-ZzeY-ythhkL4=&h=1297&w=1159&sz=71&hl=en&start=9&um=1&itbs=1&tbnid=rqlK8ctZjJ6inM:&tbnh=150&tbnw=134&prev=/images?q=ornithine&hl=en&rlz=1T4DKUS_enUS339US339&sa=G&um=1)

**Diseases**

**Septic Arthritis**

**Respiratory infection**

**Cellulite Infection**

[](http://images.google.com/imgres?imgurl=http://www.healthinplainenglish.com/health/skin/cellulitis/cellulitis.jpg&imgrefurl=http://www.healthinplainenglish.com/health/skin/cellulitis/index.htm&usg=__iihci7XkM-nE4fLC8U3BxIvS_4A=&h=263&w=400&sz=15&hl=en&start=4&um=1&itbs=1&tbnid=N6PDt5JDg5_kyM:&tbnh=82&tbnw=124&prev=/images?q=cellulites+infection&hl=en&rlz=1T4DKUS_enUS339US339&um=1)[](http://images.google.com/imgres?imgurl=http://www.forpeaceofmind.com.au/vol9/media/images/special_features\respiratory_infections/45a.jpg&imgrefurl=http://www.forpeaceofmind.com.au/vol9/special_features/respiratory_infections.cfm&usg=__D3as9VsTcWJmwLZqgl6gpUJ-ITo=&h=453&w=472&sz=198&hl=en&start=1&um=1&itbs=1&tbnid=uW_LSQnqusTACM:&tbnh=124&tbnw=129&prev=/images?q=respiratory+infections&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

**Zoonotic Pathogen**

**[Gram Negative Pleomorphic Coccobacilli](#Francisella)**

**Ability to penetrate skin**

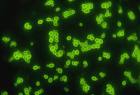
[](http://images.google.com/imgres?imgurl=http://web.mst.edu/~microbio/BIO221_2003/francisella-2.jpg&imgrefurl=http://web.mst.edu/~microbio/BIO221_2003/F_tularensis.htm&usg=__F5ijPEd_LD16YoNu5OTlEkC-5J8=&h=179&w=228&sz=11&hl=en&start=3&um=1&itbs=1&tbnid=q0yGwI6vviscCM:&tbnh=85&tbnw=108&prev=/images?q=Francisella&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Identification Methods**

**Cysteine Heart Agar**

**BYCE**

**Fluorescent Antibody**

[](http://images.google.com/imgres?imgurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111Review/Unit1Review/LegionellaBCYESelective.jpg&imgrefurl=http://faculty.matcmadison.edu/mljensen/111CourseDocs/111Review/Unit2Reviews/haemophilus_answers.htm&usg=__IaBnvAQYvg7VuvYxkM8tHEVeOUM=&h=342&w=500&sz=84&hl=en&start=1&um=1&itbs=1&tbnid=bif-zfGjysyqhM:&tbnh=89&tbnw=130&prev=/images?q=Buffered+charcoal+yeast+extract+agar&hl=en&rlz=1T4DKUS_enUS339US339&um=1)[](http://images.google.com/imgres?imgurl=http://www.terrorismcentral.com/Library/WMD/Bio/tularemia/tularemia20010417_14_0003.jpg&imgrefurl=http://www.terrorismcentral.com/Library/WMD/Bio/tularemia/LabProtocols.html&usg=__Vhe_LQy1CZjP4bzLeK0ZydtniLk=&h=99&w=131&sz=14&hl=en&start=6&um=1&itbs=1&tbnid=LuIKnRszC5Y12M:&tbnh=69&tbnw=91&prev=/images?q=cysteine+Heart+agar&hl=en&rlz=1T4DKUS_enUS339US339&um=1)[](http://images.google.com/imgres?imgurl=http://overcomingcandida.com/mycology/candid.jpg&imgrefurl=http://overcomingcandida.com/mycology/mycology-3.htm&usg=__BpnKmodPHGCtPffl_cbLPuSCoIg=&h=474&w=700&sz=40&hl=en&start=11&um=1&itbs=1&tbnid=7x8SjV2ejk4vQM:&tbnh=95&tbnw=140&prev=/images?q=fluorescent+antibody&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)

**Infections**

**Bacteremia and Pneumonia**

[](http://images.google.com/imgres?imgurl=http://lh3.google.com/piensa/R8xQiz17xrI/AAAAAAAAAdw/nrKiDnCLbrM/s400/bacteremia.jpg&imgrefurl=http://www.proyectomedico.com/2008/03/&usg=__ulckj94i1r8kNbsTSiQlqnbnDMY=&h=300&w=299&sz=21&hl=en&start=2&tbnid=UhOd7Ze2i_DSuM:&tbnh=116&tbnw=116&prev=/images?q=bacteremia&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.med-ed.virginia.edu/courses/rad/cxr/web%20images/rul-pneumonia-pa.jpg&imgrefurl=http://www.med-ed.virginia.edu/courses/rad/cxr/pathology3chest.html&usg=__BmCnP3nxpkWKlbnd5ognWKNQVQg=&h=450&w=400&sz=19&hl=en&start=2&tbnid=VQ6GGqACl7HlpM:&tbnh=127&tbnw=113&prev=/images?q=pneumonia&gbv=2&hl=en)

**[Gram Negative Coccobacilli](#Brucella)**

[](http://images.google.com/imgres?imgurl=http://www.fao.org/docrep/003/t0756e/T0756E71.jpg&imgrefurl=http://www.fao.org/docrep/003/t0756e/T0756E03.htm&usg=__1DtdMioodK-Z2mqvx4CqWvXeN34=&h=873&w=600&sz=71&hl=en&start=16&um=1&itbs=1&tbnid=d9yKRUEt68NWdM:&tbnh=146&tbnw=100&prev=/images?q=Brucella&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Method Identification**

**Urea Positive**

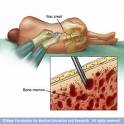
**Indole Negative**

**Oxidase Positive**

**Catalase Positive**

 [](http://images.google.com/imgres?imgurl=http://web.fccj.edu/~lnorman/images/indole2.jpg&imgrefurl=http://web.fccj.edu/~lnorman/unknowns.htm?index=2&usg=__ZkPr66p0xwN3hV1bwRla0buYrIg=&h=240&w=320&sz=29&hl=en&start=6&um=1&itbs=1&tbnid=N_fRqgpdXYewhM:&tbnh=89&tbnw=118&prev=/images?q=indole&hl=en&rlz=1T4DKUS_enUS339US339&um=1) **[](http://images.google.com/imgres?imgurl=http://lovescupcakes.files.wordpress.com/2008/01/bubbles.jpg&imgrefurl=http://philsbackupsite.wordpress.com/2008/05/page/6/&usg=__nb7UJDgn0MV8Gzgc1coUlTJqeFM=&h=422&w=517&sz=14&hl=en&start=3&um=1&itbs=1&tbnid=nSIhpU-rFiHkDM:&tbnh=107&tbnw=131&prev=/images?q=bubbles&hl=en&rlz=1T4DKUS_enUS339US339&sa=N&um=1)** [](http://images.google.com/imgres?imgurl=http://www.medschool.lsuhsc.edu/Microbiology/DMIP/urea.jpg&imgrefurl=http://www.medschool.lsuhsc.edu/Microbiology/DMIP/dmex12.htm&usg=__hlunmac6enKswDmS9KG6xWu1LFM=&h=321&w=196&sz=10&hl=en&start=3&um=1&itbs=1&tbnid=zKadNodN7ic5-M:&tbnh=118&tbnw=72&prev=/images?q=urea+positive&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Best Sample for Identification**

[](http://images.google.com/imgres?imgurl=http://www.mayoclinic.com/images/image_popup/r7_bonemarrowaspiration.jpg&imgrefurl=http://www.mayoclinic.com/health/medical/IM01819&usg=__yNzyHH1JjXI6oCeNTrVyMPj50Fs=&h=400&w=400&sz=19&hl=en&start=11&um=1&itbs=1&tbnid=j5tFFmOVR3fvbM:&tbnh=124&tbnw=124&prev=/images?q=bone+marrow&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Diseases**

**Undulant Fever**

**Malta Fever**

**Spontaneous abortions in animals**

**[Causes Rocky Mountain Spotted Fever](#Rickettsiarickettsii)**

**Vector**

**The American Dog Tick**

**Rocky Mountain Wood Tick**

[](http://images.google.com/imgres?imgurl=http://www.greatfamilycamping.com/image-files/deer-tick.jpg&imgrefurl=http://www.greatfamilycamping.com/deer-ticks.html&usg=__RWARhnMMhxMIZ8lApN9WKWWqnzc=&h=324&w=470&sz=30&hl=en&start=7&tbnid=CqPmqZDdI1JehM:&tbnh=89&tbnw=129&prev=/images?q=Deer+tick&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://ces.uwyo.edu/Entomology/InsectsHome/Garden%20and%20Household%20Insects/Rocky%20Mountain%20wood%20tick.jpeg&imgrefurl=http://ces.uwyo.edu/Entomology/InsectsHome/Garden%20and%20Household%20Insects/GandHinsects.htm&usg=__xYkNUCU8sjcYHodPbQ3H6Eaaprw=&h=150&w=150&sz=5&hl=en&start=1&tbnid=0SBaBKgCpQCHJM:&tbnh=96&tbnw=96&prev=/images?q=rocky+mountain+wood+tick&gbv=2&hl=en)

**Symptoms**

**Headache, fever, rash, nausea**

**[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)**[](http://images.google.com/imgres?imgurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical/nausea2.gif&imgrefurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical.html&usg=__CsgsUVVfaVuZxAo8HVofYY27n0I=&h=1041&w=1008&sz=21&hl=en&start=8&tbnid=6OQpjvqW7DPWzM:&tbnh=150&tbnw=145&prev=/images?q=nausea&gbv=2&hl=en)

**Diagnosis**

**Weil-Felix test**

**Direct Fluorescence**

**[Causes Rickettsialpox](#Rickettsiaakari)**

**Vector**

**House Mouse Tick**

[](http://images.google.com/imgres?imgurl=http://www.aaainsectpestcontrol.com/Bugs/tick-(2).jpg&imgrefurl=http://www.aaainsectpestcontrol.com/Bugs/index.htm&usg=__2AgZMdnqdi5iud2MBn5ZaBf2fmI=&h=313&w=325&sz=28&hl=en&start=1&tbnid=1-RuUqZBJ6M5VM:&tbnh=114&tbnw=118&prev=/images?q=House+Mouse+tick&gbv=2&hl=en&sa=G)

**Symptoms**

**papule at mite bite, fever, chills, headache, rash**

[](http://images.google.com/imgres?imgurl=http://www.ultramedix.com.au/whocanuse_files/Papule_AAD.jpg&imgrefurl=http://www.ultramedix.com.au/whocanuse.htm&usg=___yEw3XClbyPjNC6d29_EGplpYoY=&h=309&w=273&sz=9&hl=en&start=7&tbnid=vPkVrxUTQV78GM:&tbnh=117&tbnw=103&prev=/images?q=papules&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.englishexercises.org/makeagame/my_documents/my_pictures/2009/sep/51E_chills.jpg&imgrefurl=http://www.englishexercises.org/makeagame/viewgame.asp?id=2640&usg=__euVKXh-Xu8Tm2fnxNHPORGdPFVg=&h=350&w=263&sz=19&hl=en&start=1&tbnid=D8Yt-nUrr1L5RM:&tbnh=120&tbnw=90&prev=/images?q=Chills&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)

**[Humans are Accidental Host](#Rickettsiatyphi)**

**Vector**

**Rat Flea**

[](http://images.google.com/imgres?imgurl=http://www.afpmb.org/pubs/Field_Guide/Images/originals/Fig.%20216.jpg&imgrefurl=http://www.afpmb.org/pubs/Field_Guide/field_guide.htm&usg=__MyJS28gUPAnMW76axtb1-Ox_NW8=&h=568&w=522&sz=47&hl=en&start=6&um=1&tbnid=uw5OKNuPaRlGsM:&tbnh=134&tbnw=123&prev=/images?q=Rat+flea&hl=en&rlz=1T4DKUS_enUS339US339&sa=X&um=1)

**Symptoms**

**headache, fever, rash, nausea**

[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en) **[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical/nausea2.gif&imgrefurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical.html&usg=__CsgsUVVfaVuZxAo8HVofYY27n0I=&h=1041&w=1008&sz=21&hl=en&start=8&tbnid=6OQpjvqW7DPWzM:&tbnh=150&tbnw=145&prev=/images?q=nausea&gbv=2&hl=en)**

**[Louse Borne Typhus](#Rickettsiaprowazeki)**

**Vector**

**Squirrel Louse**

**Human Louse**

[](http://images.google.com/imgres?imgurl=http://dsc.discovery.com/news/briefs/20041004/gallery/lice_zoom.jpg&imgrefurl=http://dsc.discovery.com/news/briefs/20041004/lice_zoom0.html&usg=__P9flbnXtopfG89AjOAu_Ucj2tnI=&h=540&w=540&sz=122&hl=en&start=3&um=1&tbnid=e--OogmM6WUUpM:&tbnh=132&tbnw=132&prev=/images?q=Human+Louse&hl=en&rlz=1T4DKUS_enUS339US339&um=1)[](http://images.google.com/imgres?imgurl=http://bugguide.net/images/raw/ALMZNLYLPLJL2LKRCZFL6LKRDZIRQHIZOL8RTLZZ3ZIRCZIRTZKRNLMZRHERTLGRSH5RCLHZ9LYLDZ.jpg&imgrefurl=http://bugguide.net/node/view/210497/bgimage&usg=__Nh7DPkd8xRwbDbh2z6xTZm6jm2Q=&h=375&w=375&sz=36&hl=en&start=1&um=1&tbnid=86EkwifjaP-ZbM:&tbnh=122&tbnw=122&prev=/images?q=Squirrel+Louse&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Symptoms**

**headache, fever, rash, nausea**

[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en) **[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical/nausea2.gif&imgrefurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical.html&usg=__CsgsUVVfaVuZxAo8HVofYY27n0I=&h=1041&w=1008&sz=21&hl=en&start=8&tbnid=6OQpjvqW7DPWzM:&tbnh=150&tbnw=145&prev=/images?q=nausea&gbv=2&hl=en)**

**[Scrub Typhus](#OrientiaRickettsia)**

**Vector**

**Chiggers**

[](http://images.google.com/imgres?imgurl=http://indianastatemuseum.files.wordpress.com/2009/07/chigger1.jpg&imgrefurl=http://indianastatemuseum.wordpress.com/2009/07/06/there-was-a-little-chigger/&usg=__6ZRhx3ppYyYT2zEbopBbBdH8KoE=&h=263&w=410&sz=97&hl=en&start=2&um=1&tbnid=tV8_OleKUGGMjM:&tbnh=80&tbnw=125&prev=/images?q=Chigger&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Symptoms**

**headache, fever, rash, chills**

[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en)**[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.englishexercises.org/makeagame/my_documents/my_pictures/2009/sep/51E_chills.jpg&imgrefurl=http://www.englishexercises.org/makeagame/viewgame.asp?id=2640&usg=__euVKXh-Xu8Tm2fnxNHPORGdPFVg=&h=350&w=263&sz=19&hl=en&start=1&tbnid=D8Yt-nUrr1L5RM:&tbnh=120&tbnw=90&prev=/images?q=Chills&gbv=2&hl=en)**

**[Causes Trench Fever](#BartonellaQuintana)**

**Vector**

**Human Body Louse**

[](http://images.google.com/imgres?imgurl=http://www.marietta.edu/~biol/biomes/images/symbiosis/ipedcorp1.jpg&imgrefurl=http://www.marietta.edu/~biol/biomes/symbiosis.htm&usg=__W29S2bIkKCI_vCNVa6TvYVKV8Do=&h=275&w=400&sz=49&hl=en&start=1&um=1&tbnid=32BVxKnRtwSVcM:&tbnh=85&tbnw=124&prev=/images?q=human+body+louse&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Symptoms**

**headache, fever, rash, severe pain in joint**

[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en) **[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)**[](http://images.google.com/imgres?imgurl=http://www.eorthopod.com/images/ContentImages/knee/knee_bursitis_pes_anserine/knee_bursitis_pes_anserine_symptom01.jpg&imgrefurl=http://www.eorthopod.com/public/patient_education/9161/pes_anserine_bursitis_of_the_knee.html&usg=__M4vctziveurlfPi0KpHENTF8FRg=&h=400&w=400&sz=64&hl=en&start=4&um=1&tbnid=_V2fJ1cSskeGLM:&tbnh=124&tbnw=124&prev=/images?q=pain+in+the+tibia&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**[Causes Cat Scratch Fever](#Bartonellahenselae)**

**Vector**

**Cat Flea**

**[](http://images.google.com/imgres?imgurl=http://www.filhamparkvets.co.uk/Images/cat_flea_picture.jpg&imgrefurl=http://www.filhamparkvets.co.uk/Main%20menus/Summer%20health%20for%20cats%20and%20dogs.htm&usg=__ESTr9EZk1NPrnTlbyz1FUhMRAXo=&h=395&w=500&sz=46&hl=en&start=4&um=1&tbnid=6OBZRO6uIZ9_lM:&tbnh=103&tbnw=130&prev=/images?q=cat+fleas&hl=en&rlz=1T4DKUS_enUS339US339&um=1)**

**Identification Methods**

**Brucella Agar With Hemin**

**BYCE**

**[Causes Query Fever](#Coxiellaburnetti)**

**reservoir for cattle, sheep, goats, and cats**

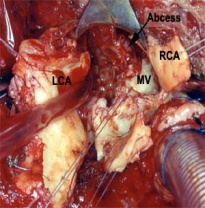
**Organism shed in feces, milk, and birth products**

**Diseases**

**Granulomatus hepatitis**

**Endocarditis**

**Pneumonia**

**[](http://images.google.com/imgres?imgurl=http://www.pathguy.com/sol/10106.jpg&imgrefurl=http://www.pathguy.com/lectures/inflamma.htm&usg=__3IR7X0lRnA3BAW6YAqlycrb056w=&h=572&w=1000&sz=128&hl=en&start=11&um=1&tbnid=A7Ri4dTQJcWRQM:&tbnh=85&tbnw=149&prev=/images?q=Granulomatus+hepatitis&hl=en&rlz=1T4DKUS_enUS339US339&sa=G&um=1) [](http://images.google.com/imgres?imgurl=http://www.med-ed.virginia.edu/courses/rad/cxr/web%20images/rul-pneumonia-pa.jpg&imgrefurl=http://www.med-ed.virginia.edu/courses/rad/cxr/pathology3chest.html&usg=__BmCnP3nxpkWKlbnd5ognWKNQVQg=&h=450&w=400&sz=19&hl=en&start=2&tbnid=VQ6GGqACl7HlpM:&tbnh=127&tbnw=113&prev=/images?q=pneumonia&gbv=2&hl=en) **

**[Ehrlichiosis](#Ehrlichiaspecies)**

**Vector**

**Tick**

[](http://images.google.com/imgres?imgurl=http://www.intelihealth.com/i/J/JHI07deerTick.jpg&imgrefurl=http://www.intelihealth.com/IH/ihtIH/wsIHW000/8777/24275/198327.html?d=dmtContent&usg=__SeBPmVpy0nOH2B5iQ-pqhZ2rF6E=&h=339&w=400&sz=27&hl=en&start=1&um=1&tbnid=ecywxJC9xCucnM:&tbnh=105&tbnw=124&prev=/images?q=lxodes&hl=en&rlz=1T4DKUS_enUS339US339&um=1)

**Symptoms**

**Headache, fever, rash, nausea**

**[](http://images.google.com/imgres?imgurl=http://janeward.files.wordpress.com/2008/05/bulldog-with-headache.jpg&imgrefurl=http://janeward.wordpress.com/2008/05/02/my-head-hurts/&usg=__sjgPgIcRdlaaKCRMchtne6CJZU8=&h=600&w=800&sz=66&hl=en&start=4&tbnid=8UZFA-Xlp9v3eM:&tbnh=107&tbnw=143&prev=/images?q=Headache&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.clipartguide.com/_named_clipart_images/0060-0808-2616-0929_Sweating_Man_With_a_Fever_Clip_Art_clipart_image.jpg&imgrefurl=http://www.clipartguide.com/_pages/0060-0808-2616-0929.html&usg=__XFiL2cT8qyEqIE8wecaJUnK6wCA=&h=322&w=350&sz=32&hl=en&start=11&tbnid=9oi0WjSs12agGM:&tbnh=110&tbnw=120&prev=/images?q=fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pictures/Kid%20hand%20-%20CDC.jpg&imgrefurl=http://www.bio.davidson.edu/people/sosarafova/Assets/Bio307/liwoeste/Pathogen%20Description.html&usg=__WyfXuylmIxH5HEmwTCat19jjMrU=&h=449&w=700&sz=64&hl=en&start=3&tbnid=-B7r5kI_2ymL7M:&tbnh=90&tbnw=140&prev=/images?q=rocky+mountain+spotted+fever&gbv=2&hl=en)[](http://images.google.com/imgres?imgurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical/nausea2.gif&imgrefurl=http://tell.fll.purdue.edu/JapanProj/FLClipart/Medical.html&usg=__CsgsUVVfaVuZxAo8HVofYY27n0I=&h=1041&w=1008&sz=21&hl=en&start=8&tbnid=6OQpjvqW7DPWzM:&tbnh=150&tbnw=145&prev=/images?q=nausea&gbv=2&hl=en)**