4229 VAN BUREN BOULEVARD, RIVERSIDE, CALIFORNIA 92503
TELEPHONE: 951.689.0440 ~ FACSIMILE: 951.689.4214
EMAIL: INFO@ARLINGTONANIMALHOSPITAL.BIZ
WWW.ARLINGTONANIMALHOSPITAL.BIZ

FELINE VACCINATION GUIDELINES

VACCINE INFORMATION

Consistent vaccination has long been an effective and safe method of disease prevention in both animals and human beings. Millions of animals in the United States are vaccinated each year with very minimal side effects, however no vaccine is one hundred percent safe and vaccination side effects are heavily dependent upon individual variability, vaccination and pathogen type. Not all vaccines are equal in safety and efficacy and vaccine formulation and technology can add significant risk for adverse reactions. At Arlington Animal Hospital we treat vaccination as a serious medical process, not to be taken lightly. Vaccination is one of the basic tenets of preventative care and should be performed in an informed manner. All patients are risk assessed based upon client and patient lifestyle to minimize over-vaccination and vaccine risk. We follow vaccine principles outlined by the largest bodies in veterinary medicine in the United States such as the American Animal Hospital Association (AAHA), American Association of Feline Practitioners (AAFP) and the American Veterinary Medical Association (AVMA) that have extensively studied vaccines, vaccine protocols, vaccine side-effects and vaccine studies dating back to 1998. Vaccination principles are not static but are dynamic and require risk assessment of the patient in regards to lifestyle and geographic location to provide an appropriate vaccination protocol that is both safe and effective.

CORE VACCINES: Vaccines all felines should receive

- FVRCP VACCINE — MINIMUM PROTOCOL: 2 DOSES GIVEN 3 WEEKS APART — MINIMUM AGE REQUIREMENT: 8 WEEKS
  - Feline Parvovirus (FPV) -Feline Panleukopenia, Feline Herpesvirus-1 (FHV-1), Feline Calicivirus (FCV)
- FeLV VACCINE — MINIMUM PROTOCOL: 2 DOSES GIVEN 3 WEEKS APART — MINIMUM AGE REQUIREMENT: 8 WEEKS
  - Feline Leukemia Virus
- RABIES VACCINE — MINIMUM PROTOCOL: 1 DOSE — MINIMUM AGE REQUIREMENT: 12 WEEKS
  - Rabies Virus (**HIGH RISK TO HUMANS**)

NON-CORE VACCINES: Vaccines felines should receive based upon risk

- CHLAMYDOPHILIA FELIS VACCINE — MINIMUM PROTOCOL: 2 DOSES GIVEN 3 WEEKS APART — MINIMUM AGE REQUIREMENT: 9 WEEKS
  - Indoor/outdoor cats.
  - Cats that live in multiple-cat environments.
  - Cats frequently exposed to large groups of cats at places such as cat shows, catteries, grooming parlors, day care centers, shelters, etc.
- BORDETELLA BRONCHISEPTICA VACCINE — MINIMUM PROTOCOL: 2 DOSES GIVEN 3 WEEKS APART — MINIMUM AGE REQUIREMENT: 8 WEEKS
  - Indoor/outdoor cats.
  - Cats that live in multiple-cat environments.
  - Cats frequently exposed to large groups of cats at places such as cat shows, catteries, grooming parlors, day care centers, shelters, etc.
- FIV VACCINE — MINIMUM PROTOCOL: 3 DOSES GIVEN 3 WEEKS APART — MINIMUM AGE REQUIREMENT: 8 WEEKS
  - Feline Immunodeficiency Virus
  - Cats that are mostly outside or completely outdoor cats.
  - Cats that live in multiple-cat environments with FIV positive cats.
  - **CAUTION – VACCINATION WILL RESULT IN A POSITIVE FIV TEST, CATS SHOULD BE MICROCHIPPED, TAGGED AND THE FIV VACCINE REGISTERED**

IMMUNIZATION PROTOCOLS

INITIAL IMMUNIZATION PROTOCOLS:

KITTEN: < 20 WEEKS	JUVENILE: > 20 WEEKS	ADULT: > 1 YEAR
8 WEEKS: FVRCP or FVRCP-C	INITIAL: FVRCP or FVRCP-C, FeLV	INITIAL: FVRCP or FVRCP-C, FeLV
11 WEEKS: FVRCP or FVRCP-C, FeLV	3 WEEKS: FVRCP or FVRCP-C, FeLV	3 WEEKS: FVRCP or FVRCP-C, FeLV
14 WEEKS: FVRCP or FVRCP-C, FeLV, RABIES	3 WEEKS: RABIES, 1-2 NON-CORE	3 WEEKS: RABIES, 1-2 NON-CORE
17 WEEKS: FVRCP or FVRCP-C, 1-2 NON-CORE	3 WEEKS: 1-2 NON-CORE	3 WEEKS: 1-2 NON-CORE
20 WEEKS: 1-2 NON-CORE	3 WEEKS: 1-2 NON-CORE	3 WEEKS: 1-2 NON-CORE

BOOSTER VACCINATION WITH INITIAL IMMUNIZATION PROTOCOL COMPLETED:

CORE VACCINATION: FVRCP or FVRCP-C – Every 1-3 years depending upon risk
FeLV – Annually
RABIES – 1 year after initial vaccination and every 3 years thereafter
NON-CORE VACCINATION: Annually

- **The actual vaccination schedule depends upon the combination of core and non-core vaccines and may differ from the above protocols.**
- **The minimum vaccine interval is 2 weeks or vaccine interference may cause vaccine failure. Exceeding a vaccine interval of 5 weeks requires restarting the protocol.**
- **Reducing vaccine volume will not reduce or prevent adverse reactions and will only make patients susceptible to disease. A minimum vaccine dose is required to stimulate lymphocyte response and induce protection against disease.**

PLEASE TURN OVER

DISEASE SUMMARIES

FELINE PANLEUKOPENIA

CAUSATIVE PATHOGEN(S): Feline Parvovirus (FPV)
DISEASE SUMMARY: A highly contagious, systemic viral disease observed in cats worldwide caused by FPV. FPV is highly environmentally stable and can withstand wide pH and temperature ranges in addition to being resistant to most common disinfectants. FPV can survive for months to years in contaminated areas. Although FPV is closely related to Canine Parvovirus (CPV) Type 2, it does not harm canines. In contrast CPV can infect cats and cause Panleukopenia. Viral particles are abundant in all secretions and excretions during illness and can be shed in feces of survivors for greater than 6 weeks after recovery. Mortality is highest in young kittens under 5 months of age.
EXPOSURE: Oronasal contact of infected secretions and/or excretions directly from infected cats or indirectly from items such as food/water bowls, toys, cages, bedding, etc.
CLINICAL SIGNS SUMMARY: FPV infects and destroys white blood cells in bone marrow and reproductive tissue thereby suppressing the immune system. In juvenile animals cerebellum and retinal tissue may be destroyed also causing neurologic disorders, incoordination, tremors and blindness. Clinical signs include profound depression, dehydration, abdominal pain, vomiting, ataxia and tremors.
VACCINATION: Injectable vaccine administered subcutaneously.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): None.

FELINE RESPIRATORY COMPLEX

CAUSATIVE PATHOGEN(S): Feline Herpes Virus-1 (FHV-1), Feline Calicivirus (FCV), Feline Chlamydophilia felis, Mycoplasma (multiple species).
DISEASE SUMMARY: Disease associated with the nasal, oral and ocular regions that affect exotic as well as domestic feline species that is easily spread by infected cats. Spread of disease is direct via infected cats and/or indirectly via handling of infected cats. Approximately 50% of infections are caused by FHV-1 although dual infections are common. Feline Chlamydophilia is mainly associated with outdoor cats. Asymptomatic carriers may shed infective particles for months either continuously or intermittently and stress may precipitate secondary illness. Incubation period varies from 2 -6 days for FHV-1 and FCV and 5 – 10 days for Chlamydophilia felis. Viral disease can be lifelong with relapses associated with stress.
EXPOSURE: Oronasal contact of infected secretions directly from infected cats or indirectly from items such as food/water bowls, toys, cages, bedding, etc.
CLINICAL SIGNS SUMMARY: Fever, sneezing, conjunctivitis (especially Chlamydia), rhinitis (infected sinuses), hypersalivation, serous to mucopurulent nasal and ocular discharge, depression, anorexia and weigh loss, oral ulceration of the tongue (especially FCV), hard palate and nostrils, corneal ulcers (especially FHV-1), abortion in pregnant queens, pulmonary edema, pneumonia (especially FHV-1), limping and lameness.
VACCINATION: Injectable vaccine administered subcutaneously.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): LOW RISK: Feline Chlamydophilia felis can cause human conjunctivitis.

FELINE BORDETELLA

CAUSATIVE PATHOGEN(S): Bordetella bronchiseptica
DISEASE SUMMARY: Bordetella bronchispetica is a bacteria now determined to be a primary respiratory pathogen in cats, dogs and swine. Bordetella bronchiseptica is considered to be one of the bacteria in Feline Respiratory Complex although it is often seen as a secondary pathogen. Bordetella bronchiseptica can often cause upper respiratory disease in conjunction with Feline Herpes Virus and Feline Chlamydia Virus or may be the primary pathogen by itself. Visible signs of infection occur within 5-7 days of exposure with an average clinical duration of 10 days. In young kitten untreated disease has a high predilection to progress to bronchopneumonia and death. Following resolution of clinical signs, some cats become asymptomatic carriers and shed the bacteria for at least 19 weeks.
EXPOSURE: Oronasal contact of infected secretions directly from infected cats or indirectly from items such as food/water bowls, toys, cages, bedding, etc.
CLINICAL SIGNS SUMMARY: Oronasal and ocular mucopurulent discharge, sneezing, fever, anorexia, lymphadenopathy (swollen lymphnodes) and lethargy.
VACCINATION: Intranasal vaccine, recommended only for at-risk cats.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): LOW RISK: Bordetella bronchiseptica can cause upper respiratory infections in humans. Immune suppressed human may develop bacterial upper respiratory infections.

FELINE LEUKEMIA

CAUSATIVE PATHOGEN(S): Feline Leukemia Virus (FeLV), a retrovirus in the family Oncovirinae.
DISEASE SUMMARY: There are three FeLV subgroup viruses, FeLV A, B and C. FeLV-A is the original virus, is efficiently transmitted among cats and is present in virtually all naturally infected cats. FeLV-A mutates to produce FeLV-B and FeLV-C. FeLV-B is found along with FeLV-A in 50% of naturally infected cats and FeLV-C in 1% of naturally infected cats. Diagnostic tests detect but cannot distinguish all FeLV subgroups. Infection rates increase with population density and persistently infected cats are the reservoir. The virus is shed in saliva, tears, urine and feces. The acute stage of disease 2-4 weeks post-infection is non-clinical however shedding of the virus is present, lasting 1-16 weeks. Some cats do not have an adequate immune response and can persistently shed the virus for months. Persist shedders typically develop fatal disease.
EXPOSURE: Oronasal contact of infected secretions directly from infected cats or indirectly via grooming, litter boxes, food dishes and biting. Transplacental transmission from mother to offspring can occur.
CLINICAL SIGNS SUMMARY: The acute stage 2-6 weeks post-infection is rarely detected but includes fever, lethargy, lymphadenopathy (enlarged lymph nodes) and blood changes. Clinical signs include immunosuppression, lymphoid or myeloid tumors, anemia, immune-mediated disease, fetal death, resorption and abortion, anorexia, depression, vomiting, bloody diarrhea, aniscoria (different pupils size), urinary incontinence, hindlimb paralysis and septicemia.
VACCINATION: Injectable vaccine administered subcutaneously.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): None.

RABIES

CAUSATIVE PATHOGEN(S): Lyssavirus in the Rhabdovirus family.
DISEASE SUMMARY: An acute viral encephalomyelitis (brain) disease that can affect any mammal and is generally fatal once clinical signs appear. Rabies is found throughout the world however a few regions exist that a disease free due to successful elimination programs, strict entry and quarantine programs or their island status. In North America rabies reservoir in most commonly found in skunks, bats, coyotes, foxes and raccoons. Most human cases of rabies have been caused by bat rabies. Cats are the most commonly reported rabid domestic animal in the United States and reported cases in domestic cats have outnumbered those in dogs every year in the United States since 1988.
EXPOSURE: Introduction of infected saliva into tissue either by a bite or introduction of infected saliva, salivary glands or brain tissue into fresh wounds or intact mucous membranes.
CLINICAL SIGNS SUMMARY: Clinical signs are divided into 3 phases – prodromal, excitative/furious and paralytic/dumb endstage. However phase division is variable and irregular. PRODROMAL PHASE: This phase lasts 1-3 days with only vague CNS signs which may intensify rapidly and some animals may die without significant clinical signs. EXCITATIVE/FURIOUS PHASE: This is the classic "mad dog" syndrome. Clinical signs include irritability, aggression, hypervigilance, extreme anxiety, loss of caution and fear, pica (eating of strange objects), attacking of animals/people, muscular incoordination, seizures, paralysis and death. PARALYTIC/DUMB PHASE: Paralysis of oral muscles, profuse salivation, inability to swallow, slack lower jaw, coma and death.
VACCINATION: Injectable vaccine administered subcutaneously, mandatory in most states but frequency of administration varies from state to state.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): HIGH RISK: Rabies causes fatal disease in humans.

FELINE IMMUNODEFICIENCY VIRUS (FELINE AIDS)

CAUSATIVE PATHOGEN(S): Feline Immunodeficiency Virus (FIV), a lentivirus.
DISEASE SUMMARY: FIV is endemic in cats throughout the world. Primary shedding of the virus is in the saliva of infected cats. Free-roaming feral and pet cats, intact male cats and aged cats are the greatest at risk of infection. FIV is uncommon in closed, indoor cats. After initial infection cats may have a transient phase of illness but recovery and appear normal for months to years before the onset of immunodeficiency. Cats remain infected for life and there is no treatment for FIV. FIV cats preferentially contract Feline Leukemia Virus (FeLV). FIV positive cats should be kept as sole indoor pet to prevent disease transmission.
EXPOSURE: Direct inoculation by a bite from infected cats.
CLINICAL SIGNS SUMMARY: Chronic secondary and opportunistic infections of the respiratory, GI (including the mouth), urinary tract and skin. A small percentage will develop behavioral abnormalities, psychomotor disturbances, dementia and convulsions.
VACCINATION: Injectable vaccine administered subcutaneously, not recommended as only a single administration will cause a positive FIV test which cannot differentiate between true disease and vaccination.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): None.

FELINE INFECTIOUS PERITONITIS (FIP)

CAUSATIVE PATHOGEN(S): Feline Infectious Peritonitis Virus (FIPV), a mutation of Feline Coronavirus (FCoV). Multiple strains of both.
DISEASE SUMMARY: FIP is a worldwide disease with mortality that approaches 100% despite therapy and has been identified in both domestic and wild felines. Although it is thought that a large number of cats may be infected with FCV, only a few develop disease and clinical signs. FIP has two forms – a dry or noneffusive form and a wet or effusive form and infected cats may suffer from both forms. Cats may suffer from localized gastrointestinal (GI) disease caused by FCoV or more systemic disease caused by FIPV. The exact relationship of mutation from FCoV to FIPV is unclear. FCoV strains are stable in the environment and when dry can survive for 4-6 weeks but are destroyed by most household disinfectants particularly bleach. The incidence of FIP is highest in cats 6-24 months of age contracted from infected mothers or asymptomatic carriers at 5-10 weeks of age. Losses in breeding colonies are often sporadic and unpredictable and mortality rate may vary from 10-35%. Prevalence of the disease is difficult to determine because serological tests are not highly accurate. The development and form of FIP depends upon intrinsic immunity. Cats with strong humoral (antibody) immunity and weak cell-mediated (memory) immunity develop effusive FIP. Cats with strong humoral immunity and partial cell-mediated immunity develop noneffusive FIP. Cats with or without humoral immunity but with strong cell-mediated immunity can completely recover or become asymptomatic carriers. Asymptomatic carriers may later develop clinical disease due to stress or co-infection, most typically by Feline Leukemia Virus (FeLV).
EXPOSURE: Oronasal contact of secretions and/or excretions directly from infected cats, most commonly saliva, or excreta, most likely feces. Litter box exposure and mutual grooming are common sources of infection. Transplacental transmission from pregnant females to their unborn kitten is also observed.
CLINICAL SIGNS SUMMARY: FIPV targets the liver, spleen, abdominal lymph nodes and viscera, lungs, eyes and brain. Primary infection is often asymptomatic but in some cases fever of unknown origin, conjunctivitis, upper respiratory signs and diarrhea may occur. This stage may last week to months before progressive disease is observed.
EFFUSIVE (WET) FIP: Cats usually present with fluid filled abdominal distension, respiratory distress due to pleural fluid accumulation, chronic fever, anorexia, weight loss and depression.
NONEFFUSIVE (DRY) FIP: Often present with vague illness such as chronic fever, lethargy, weight loss, hepatic or renal failure, ocular disorders such as uveitis (ocular inflammation), hyphema (blood within the eye globe), hypopyon (pus within the eye globe), blindness and CNS disorders such as rear incoordination, paresis, ataxia, convulsions, personality changes and hyperesthesia (increased sensitivity).
VACCINATION: Intranasal vaccine, not recommended due to minimal efficacy. Only cats that are negative to FCoV should be vaccinated and are likely to develop some level of protection.
ZOONOTIC POTENTIAL (SPREAD TO HUMANS): None.